

Gold Mine Release Press Responses – As of 2/3/16

BACKGROUND ON GOLD KING MINE

What triggered EPA's most recent interest in the Gold King Mine?

While the American Tunnel treatment plant operated, water quality in the Animas River improved. However, since 2005, water quality in the Animas River has not improved and has actually declined 20 miles below the confluence with Cement Creek. Fish population surveys conducted by Colorado Parks and Wildlife found no fish in the Animas River below Cement Creek for approximately two miles and showed declines in fish populations as far as 20 miles downstream since 2005.

Because of this declining water quality in the Animas River, in 2008, EPA's Superfund Site Assessment program began investigations in Upper Cement Creek focused on evaluating whether the Upper Cement Creek area would qualify for inclusion on the National Priorities List (NPL). This evaluation indicated that the area would qualify, although after receiving additional community input, EPA postponed efforts to include the area on the NPL. Since that time, EPA has continued and broadened its investigations of conditions at the site in order to understand the major sources of heavy metal contamination in the Upper Animas.

A previous study indicates this mine was considered a high priority for clean up. When was the last time it was assessed? Were there any prior attempts to clean it?

There have been ongoing site assessments in the Animas watershed. The Colorado Department of Reclamation, Mining and Safety (CDRMS) conducted limited work at the site in 2008 and 2009 to re-route the emergent mine drainage off of the top of the waste pile and safeguard the hazardous mine openings, as required in the reclamation permit for this site. This work was performed under a bond-forfeiture action associated with Permit M-1981-013. The EPA's first attempt to assess the Gold King Mine for potential cleanup was Aug. 5, 2015.

Todd Hennis, owner of the Gold King Mine, claims EPA coerced him to grant access to this mine on threat of a \$35,000 a day fine.

Todd Hennis and his two corporations, Salem Minerals Inc. and San Juan Corporation, own a number of mining claims in the Upper Cement Creek area, including the Gold King Mine. Prior to the spring of 2011, Hennis had provided EPA access to all his properties for sampling and investigations. EPA indicated to the community in 2010 that EPA was investigating a targeted listing on the NPL of the Upper Cement Creek area (including the Gold King Mine). Hennis opposed that potential listing (see Open Letter to Community) and refused to provide future access. As a result, EPA issued an Administrative Order Directing Compliance With Request For Access - Docket No. CERCLA-08-2011-0008 on May 12, 2011 (See Order). Not complying with such an order without sufficient cause may subject the party to penalties as high as \$37,500 per day if the matter goes to court. Hennis and his counsel met with EPA soon thereafter and agreed to consent to access (See June 2011 Access). In regards to the Gold King Mine Removal Assessment, Hennis provided a consent for access on Aug. 8, 2014 (see Consent).

What is the latest update on flow?

- [8/16] The Gold King Mine is releasing water on average, at the rate of approximately 559 gallons per minute. Water continues to be treated at a series of settling ponds before being discharged to Cement Creek.
- [9/3] The current discharge rate from the Gold King Mine ranges from about 500 to 600 gallons per minute.
- [9/3] The flow varies, but is averaging approximately 550 gallons per minute to 625 gallons per

minute.

- [9/9] The mine continues to release water at a rate averaging 550 gallons per minute. Yesterday's specific rate was 593 gallons per minute so it does vary from day to day. This water runs through 4 newly constructed treatment ponds on the mine site prior to being released into the creek. Treatment helps settle out suspended metals and adjusts the PH of the mine water before it enters the creek.
- [9/10] We measure the flow at the mine. It varies from day to day. Yesterday, it measured 585 gallons per minute.

Do you know at what time the orange plume reached Silverton?

On August 27, 2015, EPA released the August 17th, 2015 Site File Memo from the On-Scene Coordinator that provides a chronology of events. It does not specify an exact time for when the spill reached Silverton, but indicates it is sometime on August 5, 2015 between 12:47 pm and 11:26 pm. The memo is available at: http://www2.epa.gov/sites/production/files/2015-08/documents/memo_august_17_2015_08-1547102.pdf

I have an urgent fact check about the Gold King spill based on an interview today with Governor John Hickenlooper. The Colorado Statesman newspaper quotes your office saying that the same amount of contaminated water that spilled on Aug 5 flows out of the mine every four days. Is that correct information?

You can find information about flow rates in attachment E (attached) to our internal review. The attachment also provides a nice historical summary of flow. Based upon 2009-2014 flow data, the average annual discharge from the Gold King Mine and three nearby mines (Mogul, Red and Bonita, and American Tunnel) reached approximately 330 million gallons per year. Here is the link to the entire document that I am referencing: http://www2.epa.gov/sites/production/files/2015-08/documents/epa_mnt_gold_king_internal_review_attachments_a-f_aug_24_2015_0.pdf. Regarding the total release volume - USGS measured increased flows at a streamgage starting at about 12:30 p.m. and ending about 7:15 p.m. This resulted in a provisional calculated flow volume of 3,043,067 gallons discharged from the Gold King Mine. A streamgage is an instrument that measures volume by measuring flow, which is much more precise. The mine continues to release water at a rate averaging 550 gallons per minute. This water runs through 4 newly constructed treatment ponds on the mine site prior to being released into the creek. Treatment helps settle out suspended metals and adjusts the PH of the mine water before it enters the creek.

It looks like the owner of Gold King is accusing the agency of lying about the spill's causes. Any perspective?

The agency's Internal Review did not make a finding of what caused the release. That was made clear by Mr. Stanislaus when he appeared before the House Science, Space, and Technology Committee on Sept. 9, 2015. As Mr. Stanislaus has said, we are awaiting the results of the independent investigation from the U.S. Department of the Interior and the EPA Inspector General before determining the cause of the release. Agency staff in our Region 8 office have had several discussions with Mr. Hennis's legal counsel since Aug. 5.

Can you or anyone at EPA provide me with a comment about the cave-in issue?

Page 7 of the internal investigation mentions a mine cave-in as a possible scenario that could have contributed to blockage that reduced water flows, thus causing water to back-up in the mine. You should also review page 5 of the investigation, which mentions the rock giving way above the adit appeared to result in a spurt of water to flow from the mine. And I do want to clarify Mathy did not say that a cave in "caused" the release. Our internal review did not make a finding of what "caused" the release. <http://www2.epa.gov/goldkingmine/epa-releases-internal-report-gold-king-mine-response>. There is also a

ton of great stuff under the "Gold King Mine Documents" section of the site, too.
<http://www2.epa.gov/goldkingmine/epa-posts-gold-king-mine-file-documents>.

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Was there cell phone coverage in the area during the time of the spill?

Following up on your question with some background Environmental Restoration's Site Health and Safety Plan required the work team to have a mobile telephone, two-way radios, and vehicle horns/air horn. At the time of the release, the road was destroyed and the EPA crew was trapped with no cell phone coverage. The EPA crew radioed to an EPA ERRS contractor who was off-site to notify him of the situation. The contractor contacted a team from the Colorado Division of Reclamation, Mining and Safety (DRMS) who had been assisting EPA at Gold King Mine but who were off-site at that time. EPA and DRMS personnel then communicated via radio and the OSC instructed DRMS to make notifications. Although not required in the work plan, the work team also was equipped with a satellite phone. The day of the release, the subcontractor working with the mine team was given the satellite phone because they were conducting underground operations at the nearby Red and Bonita Mine.

Reports claim the EPA signed off on its plan to put drainage pipe in the Gold King Mine and you were aware of the potential disaster. Is this true?

While the EPA Inspector General(IG) received the letter from CO DNR Executive Director King on September 2, 2015, because the IG is an independent entity within EPA, others at the agency did not receive the letter until November 10, 2015. It was shared with the media at that time in response to a CO open records law request, and subsequently shared by CO DNR with others at EPA.

We continue to have a productive working relationship with the state of Colorado and will review the matters outlined in their letter.

The EPA has claimed they underestimated the pressure inside the mine. Why was that never tested before work began on the mine?

For the Adit, a determination of no or low mine water pressurization was made by professionals with substantive mining and engineering experience. The reasons for this determination include:

1. The hill above the Adit was inspected for seeps which would have indicated outward flow from mine water that had a pressure head above the top of the Adit. It was reported that there were no seeps.
2. The mine was draining, which indicated that since water was able to escape, buildup of pressure was less likely.
3. The "seep" level coming from the Adit during excavation seemed to be at the midlevel of the material blocking the Adit, indicating a partially filled adit as opposed to a pressurized one (See Attachment D, bottom of two metal pipes).
4. The Red and Bonita Mine Adit was lower in elevation (a few hundred feet) and found to be unpressurized after it was accessed by drilling from above. 8. The DRMS experts indicated that similar techniques have been employed at other similar mine sites. One DRMS expert noted that a similar investigation technique was implemented at the Captain Jack Mine in Colorado but did not result in a blowout.

Regarding the decision by EPA not to use a drill rig to bore into the Gold King Mine (GKM) from above and directly determine the level of the mine pool, EPA's GKM Internal Review Team found that site conditions made it difficult to undertake such drilling to determine pressure within the mine. The Review Team identified technical challenges, safety, timing, and cost as factors in considering this technique—and also identified the steepness and instability of slopes at the site as a key safety consideration.

Is the EPA better prepared in case something like this happens again?

EPA will be looking closely at the results of the Department of Interior report, our internal review, and the Office of the Inspector General's forthcoming report. Those reports will help inform our current and future mine remediation projects.

CLAIMS

The forms I received, what time frame is that from?

The forms concern claims filed after the date of the GKM incident through Oct 13, 2015

What is the deadline for submitting Form 95s?

Claims must be presented to EPA within two years after the claim accrues.

How are Form 95s reviewed?

The EPA Claims Officer and the Department of Justice will review the Standard Form 95s and supporting documentation to determine whether the Federal Tort Claims Act provides a means of compensating claims for money damages arising from the Gold King Mine incident. Also see answer to Question 5.

If the applicant is unhappy with the EPA's settlement, can they challenge it? How does that process work?

EPA's Federal Tort Claims Act (FTCA) regulation provides that a person may amend their claim form at any time prior to reaching a settlement with EPA, or before the person files a lawsuit under the FTCA. A claimant may seek to negotiate a settlement of the claim which the claimant deems favorable. In the event a settlement agreement is not reached, the Agency would ultimately deny the claim. The claimant then has six months within which to "appeal" the denial by filing a lawsuit in federal district court.

When will the Form 95s related to GKM be decided upon?

EPA has undertaken its own internal review of the events leading up to the Gold King Mine incident, including the actions undertaken by Agency and other officials following the release. We also sought an independent evaluation of the events surrounding the Gold King Mine release from various experts at the U.S. Department of Interior, and we recently received the results of that investigation. Finally, the Agency is awaiting a report by the Office of Inspector General (OIG) and its review of the matter.

The findings and conclusions of these reports and investigations, once complete, will be carefully reviewed by EPA's Claims Officer in order to assess the applicability of the FTCA for purposes of paying legitimate claims against the United States for money damages arising from the Gold King Mine incident. In addition, EPA regulations provide that no award, compromise, or settlement in excess of \$25,000 may be effected without the prior approval of the Attorney General or designee. Further, under these regulations, the EPA cannot settle any claims, even those under \$25,000, that have the potential to set precedent, involve policy, or control disposition of related claims without consultation of the Department of Justice. See 40 C.F.R. § 10.10. This process, involving EPA's Claims Officer and relevant officials from the U.S. Department of Justice, is required by law and regulation, for the receipt and processing of any claims under the FTCA. Upon reviewing the relevant facts, the EPA Claims Officer together with officials in the Department of Justice, will determine whether the FTCA provides a means of compensating claims for money damages arising from the Gold King Mine incident. We will endeavor to complete this process as soon as possible.

Have any been reimbursed to date?

No.

Tribes, farmers, businesses and others have yet to be reimbursed for their damages and losses. When will the EPA be doing so?

The agency has received 36 Federal Torts Claim Act (FTCA) administrative claims so far, and will process them within the six-month timeframe required by FTCA. EPA has not received any cooperative agreement applications to date, but has received inquiries regarding the cooperative agreement process from ten entities in the area impacted by the spill, including the Southern Ute Indian Tribe.

CLEANUP AND REMEDIATION ACTIVITIES

What will EPA be doing to make sure that the mines in the Upper Animas basin are safe?

EPA will be working with our partners at Colorado Division of Reclamation, Mining and Safety to evaluate the impact of the Gold King Mine release and to determine if additional measures are necessary to address potential discharges.

What procedures are underway to remediate the problem?

As water exits the mine, the water flows into a treatment pond system. The treatment ponds provide retention time to allow the pH adjustment to happen. Flocculation compounds are added during the process to settle the metals to the bottom of the retention ponds. There are currently four ponds; one additional retention pond is being added to the treatment system to allow crews to manage the sludge that have settled out to date. This additional pond will allow the treatment system to maintain efficiency as the crews are managing the existing ponds. A commercial water treatment system will be placed on site as part of short-term actions for water treatment. Planning is in place for a treatment solution that includes piping discharge to a lower mine site with a better location for water treatment to continue into the fall. Longer-term treatment needs and options are being evaluated.

The EPA has built four containment ponds to clean and then discharge continuing runoff from the mine. How long does the EPA expect those containment ponds to remain in place? What other work at the site of the spill is under consideration immediately?

We are currently evaluating viable treatment alternatives at this remote location while reinforcing the portal area and rebuilding the road leading to the mine for safety and site.

EPA has been involved in the Animas River Stakeholders group for 20-plus years and has known for years that heavy metal drainage was increasing in the Animas watershed, yet it took until 2014 to get a task order approved on the Gold King. Why? The task order is from 2014, so why wasn't the work done then?

Work to address large and complicated mining sites takes time and in most cases years. The task order could not be implemented until EPA completed necessary steps.

Why did work not begin earlier in the summer?

Work began at the site based on the availability of personnel and equipment, and appropriate weather conditions.

Were appropriate water treatment and sludge management systems in place before the drainage process began?

The activities were consistent with the activities outlined in the schedule.

When did the Division of Reclamation, Mining and Safety (DRMS) create mine drainage as mentioned in the documents? Documents said the drainage included a culvert pipe and concrete flume – how much water was draining through that? And it appears to have been conveyed directly to Cement Creek without settling ponds or any treatment. Is that correct?

Contact the Colorado Division of Reclamation, Mining and Safety (CDRMS) regarding work they performed.

Why was heavy equipment being used to check the debris from the portal collapse that was holding back the water? Knowing of the potential for a blowout, why wasn't a more delicate approach taken?

The Department of Interior is conducting an independent review of the release which will determine the adequacy of the activities leading up to the incident. We are not speculating on the findings of this independent review. In addition, EPA conducted its own internal technical examination of the incident. Click here for the information: <http://www2.epa.gov/goldkingmine/internal-investigation-documents>

What long-term plans for stopping the flow of wastewater from Gold King are under consideration?

It's too early to determine the technical solution that will be effective in stopping water flow from the mine. Our short term goal is to stabilize the site and repair the road before winter snows set in.

Mines have been leaking contamination into some of these rivers for many years; will the Gold King spill appreciably increase the contamination load in the sediments for the Animas, San Juan or other water bodies?

The data EPA has collected before the Gold King Mine release and after the release indicate that the metal concentrations in sediment analyzed are currently similar to those detected in pre-incident sediment samples.

What long-term plans for stopping the flow of wastewater from Gold King are under consideration?

It's too early to determine the technical solution that will be effective in stopping water flow from the mine. Our short term goal is to stabilize the site and repair the road before winter snows set in.

Why was work being done on Aug. 5 when these documents show it wasn't officially slated to begin until Aug. 17?

Work began at the site based on the availability of personnel and equipment, and appropriate weather conditions. The activities were consistent with the activities outlined in the schedule.

What, if any, new protocols have been put in place re: notification of state and locals of events such as Gold King Mine?

A new Gold King Mine / Animas River Stakeholders alert and notification plan has been drafted. It is currently being reviewed by local government officials.

As for the commercial water treatment facility to be installed ahead of the winter, where would it be placed?

The Agency is evaluating treatment options for Gold King Mine discharge. If a water treatment facility is decided upon, it will likely be placed in Gladstone, Colorado.

Are you adding ponds at Gladstone?

Yes.

How much would the apparatus cost?

The Agency is evaluating treatment options, but our preliminary estimate is that the treatment options under consideration would likely be over \$3 million including set-up and treatment for a year.

Where will the money for this plant come from?

The Agency is evaluating treatment options. Once a course of action is decided on, the funds will likely come from the Superfund appropriation.

Will the plant be permanent or temporary?

The Agency is evaluating treatment options. If a water treatment facility is decided upon, it will likely be a temporary plant.

Is that \$3M just for set up or it is for the first year? Or is \$3M for each year?

\$3 million for set up and treatment for the first year.

Results of samples taken of both sediments and water have been steadily trending downward; is that expected to continue? Have levels reached pre-spill levels all around? The metal concentrations of the samples are below surface water and sediment/soil recreational screening levels, and are being maintained at pre-event conditions.

Given what's been learned so far, is a significant recurrence of contamination in the water still considered unlikely?

EPA has reviewed the data which includes comparison to screening levels for exposure during recreational use. The metal concentrations of the samples are below surface water and sediment/soil recreational screening levels, and are being maintained at pre-event conditions. Given that there is no change in the sediment contaminant levels, we don't expect any re-mobilization of Gold King event-related contaminants to pose health risks.

In the EPA's view, is there any reason for irrigation systems along the path of the spill still to be shut down? Does the EPA foresee any future high-water events necessitating the closure of those systems (and/or drinking water intakes)?

It's not uncommon for sediments to move, especially in areas of fast water flow or in times of fast water flow, such as heavy rain events or snow melt. Because the metal concentrations in sediments analyzed after the Gold King Mine release are similar to those before the release, we do not expect the movement of the sediments during high water flow events would result in water or sediment concentrations unusual for this area.

Has further progress been made in a long-term solution for Gold King and adjacent mines? Any details on what is being considered beyond the retention ponds now in place would be appreciated.

It's too early to determine the technical solution that will be effective in stopping water flow from the mine. Our short term goal is to stabilize the site and repair the road before winter snows set in.

Someone told me the containment pond below the Gold King Mine in Silverton failed and released water recently. Is this true?

There isn't a containment pond. There are a series of 4 treatment ponds for the mine water. They are all working fine. The mine flow averages about 550 gallons per minute. The mine water is treated to help remove suspended metals and PH before entering the creek.

With whom could I speak to discuss the details of the plan in Utah? Really quick question: Is this comment period open to the general public, and if so, where do people send their comments?

The agency is seeking comment from states, tribes and local communities. People should contact their city or state Department of Environmental Quality if they'd like to provide input. You can attribute the following quotes to Sandra Spence, chief of EPA's Region 8 Water Quality Unit. (Region 8 includes Utah): We've selected draft locations in the plan, and we're soliciting input on whether those are the right sites to sample or whether other locations would be better. In Utah, we're suggesting that we sample at two locations --- on the San Juan River at Bluff, Utah, and on the San Juan River inlet to Lake Powell. We are proposing to do at least five sampling events at those locations over the next year. We would be doing macroinvertebrate surveys and fish surveys, and we would also be sampling total and recoverable metals in water and sediment, from both within the water column and along the shore. What it means for Utah is that there will be additional data to compare against water quality standards and benchmarks to see if there has been a change from historic conditions and, if there has been a change, if it has resulted in an exceedance of these important benchmarks.

What does the long-term monitoring plan mean for the other jurisdictions in Colorado, New Mexico, Navajo Nation, Southern Ute Tribe and Ute Mountain Ute Tribe?

Here's a summary of the number of sites that are on in the various jurisdictions. It's too complex to name the sites as many just have a site number and GPS coordinate. Perhaps we can just be more general and refer people to the plan to take look at the map and list of sampling locations. Here's the breakdown of the locations – though we have 23 proposed locations, some are multijurisdictional and are counted more than once in the following list.

Here is the breakdown for a particular jurisdiction:

Colorado – 11 sites

Southern Ute Tribe – 3 Sites

New Mexico – 5 sites

Ute Mountain Ute Tribe – 1 sites

Navajo Nation – 6 sites

Utah – 2 sites

Here's the multi-jurisdictional breakdown that adds up to 23 sites:

Colorado only – 10 sites

Colorado/Southern Ute – 1 site

Southern Ute only – 2 sites

New Mexico only – 3 sites

New Mexico/Navajo Nation – 2 sites

Navajo only – 2 sites

Navajo/Utah – 2 sites

Ute Mountain Ute – 1 sites

Here's some language taken directly from the plan to explain what we will do if we see a change from historic conditions that exceeds an important benchmark:

“After completing one year of monitoring under this plan, if results indicate a return to pre-release/historic trends, monitoring efforts under this plan will end and routine monitoring per State, Tribal and Federal program strategies and priorities. If pre-release/historic trends across the watershed are not maintained at some locations in the watershed, the EPA will conduct additional site-specific investigations as appropriate and use its authorities to work with other federal agencies, States, Tribes and local entities to address these problems. The EPA is coordinating with its regulatory partners and affected stakeholders to understand other organizations' monitoring efforts, prevent duplication and promote data sharing.”

COMMUNITY OUTREACH

Why did it take almost 24 hours to notify the communities downstream?

There were notifications on the same day of the incident for the downstream communities in immediate proximity to the release. This allowed drinking water intake systems to be closed prior to the spill reaching these intakes. Notifications further downstream were also made – although 24 hours later – well in advance of the spill reaching those areas of the river. This too allowed for drinking water intakes to be closed prior to the spill reaching these further downstream areas.

What is EPA's response to Animas River Stakeholders Group's claims that the Agency did not discuss or collaborate on the Gold King Mine?

EPA disagrees with this assertion. ARSG co-coordinators and attendees at ARSG meetings were provided with information and were asked for input on EPA's findings and the conceptual approach for planned work at the Red and Bonita and Gold King Mines through in-person meetings, presentations at public meetings, and email correspondence over the past year. EPA has been a regular participant in monthly ARSG meetings and site tours, and we will continue to use those as opportunities for communication and dialogue with local partners as we move forward.

Has a new communication post been established at the site and how has that helped improve alert notifications downstream?

A communication post is included as part of the emergency response operation.

Is a new wireless tower under construction?

EPA has no information about a new wireless tower.

Are satellite phones required there now?

A satellite link is available to enable communication with sources outside the site.

Can you explain the notification process in New Mexico following the Gold King mine spill a bit more?

We have posted a chronology of activities following the incident on our website which you can review at www.epa.gov/goldkingmine. We have also posted an internal review. Other independent reviews are underway by DOI and EPA's IG. NMED was notified after the Region 6 office in Dallas was alerted to the incident.

Do we know when the public and the effected tribes were notified? Were they notified by the EPA, the National Response Center, or the Coast Guard? When did the spill occur and what time were the tribes notified? Has any money been obligated to any Indian tribes related to the Gold King Mine spill? Has a hazardous waste disposal facility been established?

Regarding incident, I would focus on our internal review that was released recently. It is available online at <http://www2.epa.gov/goldkingmine/epa-releases-internal-report-gold-king-mine-response>. In addition the site file memo will be helpful – it is at <http://www2.epa.gov/goldkingmine/gold-king-mine-chronology> and includes a chronology. DOI is conducting an independent review and the EPA IG is also reviewing the incident. Those reviews will provide additional details when they are public. Regarding your last question – no hazardous waste disposal facility has been established.

Are you receiving a lot of calls from people in La Plata County, or not just in La Plata, but in general, from homeowners who have sediment in their small waterways and want to know how to dispose of it, and if their water is safe for their gardens, etc? Does the EPA dispose of the sludge, or is that up to those homeowners?

EPA has received approximately 10 requests from LaPlata County property owners to sample sediment on their property. Data will be released to homeowners. EPA is currently evaluating sediment sample results to make determinations on further actions.

Is it the homeowner's responsibility to call in if they have concerns, or did the EPA check in on everyone? Do you respond to each call? What is the protocol for that?

EPA receives citizen inquiries through the Gold King Mine call in center and follows up on each inquiry.

The owner of the Tribune Claim in San Juan County has filed a complaint with the county alleging that EPA trespassed on his property on Sep 5-6 in the dark of night and built a temporary pipeline next to Cement Creek without his permission. He says there is a dispute about the boundaries and that EPA built the pipeline without a survey and/or proper resolution of the dispute.

I can confirm that we are aware of the complaint regarding the placement of materials which have not been installed and addressing the concern.

New Mexico Environment Sec. Ryan Flynn says that EPA officials would not share data on surface water samples, sediment sampling plan. Can you please respond? Is Mr Flynn's description of events accurate? Why was data withheld? Was only partial data released, as Mr. Flynn says?

To assess the impacts of the release at the Gold King Mine, water quality samples were collected from the Northern Border of New Mexico to Navajo Nation at numerous intervals beginning on Aug. 7, 2015. Based on consultation with affected communities, the results were compared against Recreational Screening Levels and then posted publicly. The EPA has closely coordinated with our federal partners and with officials in Colorado, New Mexico, Utah, the Southern Ute and Ute Mountain Ute tribes and the Navajo Nation to keep them apprised of water and sediment sampling results, which are routinely posted on our website. All results were made available on EPA's website as soon as they were validated and reviewed. One of our foremost priorities is to keep the public informed about the impacts from the Gold King Mine release and our response activities.

Todd Hennis told me the only people at EPA he's been able to talk to are workers at the site. That "all attempts to talk to anyone up the chain-of-command have been rebuffed." Is that true and do you know if it's standard operating procedure?

As Mr. Stanislaus has said, we are awaiting the results of the independent investigation from the U.S. Department of the Interior and the EPA Inspector General before determining the cause of the release. Agency staff in our Region 8 office have had several discussions with Mr. Hennis's legal counsel since Aug. 5. The agency's Internal Review did not make a finding of what caused the release. That was made clear by Mr. Stanislaus when he appeared before the House Science, Space, and Technology Committee on Sept. 9, 2015. As Mr. Stanislaus has said, we are awaiting the results of the independent investigation from the U.S. Department of the Interior and the EPA Inspector General before determining the cause of the release. Agency staff in our Region 8 office have had several discussions with Mr. Hennis's legal counsel since Aug. 5.

How does EPA respond to criticisms on its water sampling methods?

EPA follows published sampling methodologies that are used throughout the country to create reproducible samples. As we've said before, these samples are analyzed by a private lab accredited by the National Environmental Laboratory Accreditation Conference, an independent, non-governmental laboratory certification organization. After the lab conducts its analyses, data reports generated are validated by an independent data validation service provider.

EPA has a clear chronological picture of water and sediment throughout the regions in addition to a historical data set that is based on decades of information gathering. Find more about our cumulative data here: <http://www2.epa.gov/goldkingmine/data-gold-king-mine-response#samplingdataresults>

CONGRESSIONAL HEARINGS

Can you comment on the upcoming Congressional Hearings?

We aren't providing comment on pending hearings before Congress. Thank for you writing us and we look forward to working with you.

Hi, I saw that that the House Science, Space & Tech committee is holding a Sept. 9 hearing on the Animas River spill. The chairman had asked EPA administrator Gina McCarthy to testify, but I saw that another EPA official is testifying instead. Can you tell me why Ms. McCarthy is not planning to testify?

As the Assistant Administrator for the Office of Solid Waste and Emergency Response and Senate confirmed, Mathy Stanislaus is uniquely qualified to represent EPA at the House Science, Space & Technology Committee regarding the Gold King Mine response efforts. Thanks!

Your rep at the congressional hearing indicated that the Animas River spill happened because of a cave-in and a fact sheet also says this. Can you expound on this? When did the cave-in happen (if you know)? Also, how did the drainage pipe get plugged up?

The cave-in in the nearby Old Adit is discussed on p. 7 of EPA's internal investigation. To read the report and its associated documents: <http://www2.epa.gov/goldkingmine/internal-investigation-documents>. Additional info: On Aug. 26, the U.S. Environmental Protection Agency (EPA) released the findings of an internal review of the agency's response to the Gold King Mine incident. Led by five EPA personnel from multiple EPA regions and Headquarters, the reviewers were tasked with developing a detailed, chronological description of events as well as identifying potential factors contributing to the release. The report provides observations, conclusions, and recommendations that regions may apply to ongoing and planned site assessments, investigations, and construction or removal projects at similar types of sites across the country. EPA will implement all the recommendations from the report and has shared its findings with external reviewers. In addition to the internal review, the U.S. Department of the Interior (DOI) is leading an independent assessment of the factors that led to the Gold King Mine incident. The assessment began on Tuesday, August 18, and it is anticipated that DOI will provide the assessment report to EPA and the public within 60 days. The goal of DOI's independent review is to provide EPA with an analysis of the incident that took place at Gold King Mine, including the contributing causes. Details about the independent review will be made available by DOI when they become available. Both internal and external reviews will help inform EPA with ongoing and planned site assessments, investigations, and construction or removal projects.

Does the EPA have any reaction to Rep. Bill Johnson's contention at today's House hearing that the EPA removed audio from its website video footage in which a worker at the mine says, "What do we do now?" Did the EPA remove the audio, and if so, can you tell me why?

The redacted video was posted by mistake. The unredacted version was meant to be shared on the EPA website. We've since removed the redacted version and replaced it with the unredacted version, as was originally intended.

CONTRACTING

Could you please tell me how frequently the EPA includes nondisclosure or confidentiality agreements in its contracts?

EPA does not have a database that can identify the specific number of clauses included in solicitations and contracts.

Are there specific parameters that dictate when a nondisclosure or confidentiality agreement must be included in a contract? If so, what are they?

The Federal Acquisition Regulation (FAR) clause 52.203-16, entitled “Preventing Personal Conflicts of Interest” requires contractors to secure non-disclosure agreements in all contracts that (1) Exceed the simplified acquisition threshold; and (2) Include a requirement for services by contractor employee(s) that involve performance of acquisition functions closely associated with inherently governmental functions for, or on behalf of, a Federal agency or department. See FAR 3.1106.

The U.S. Environmental Protection Agency’s (EPA or Agency) supplement to the FAR, the EPA Acquisition Regulation (EPAAR) prescribes a clause that requires contractor and subcontractor employees to execute confidentiality agreements. See EPAAR clause 1552.227-76, entitled “Project Employee Confidentiality Agreement.” EPAAR clause 1552.227-76 is required to be inserted “in all Superfund solicitations and contracts in excess of the simplified acquisition threshold and, as appropriate, in simplified acquisitions for Superfund work” and may also be inserted in solicitations and contracts pursuant to Contracting Officer discretion. See EPAAR 1527.409.

The EPAAR also includes several contract clauses requiring contractor employee confidentiality in the handling of confidential business information. See e.g., EPAAR clauses 1552.235-71, 1552.235.73, 1552.235-75, 15520235-76 and 1552.235-77.

Nondisclosure agreements in federal contracts have been used in the past to silence whistleblowers, even when considering whistleblower protection laws. Is this something whistleblowers both with contractors and with the EPA should be concerned about when signing an NDA? If not, why not?

With regard to whistleblower protections, on March 24, 2015, EPA issued FAR clause 52.203-98 (Deviation), entitled “Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements-Representation,” which is required to be included in all solicitations that will use federal funds. FAR clause 52.203-98 (Deviation), inter alia, requires contractors to represent “that it does not require employees or subcontractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.”

Was this (the NDA for Environmental Restoration’s work on GKM) just written for GKM or is it typical?

In the GKM contract with Environmental Restoration, all terms and conditions relating to company or contractor/subcontractor employee NDAs or confidentiality agreements are prescribed in Federal or EPA regulation – a process that requires public vetting via the Federal Register before going final.

In addition, the statement of work includes a standard requirement that the contractor shall not publish or otherwise release, distribute, or disclose any work product generated under the contract without obtaining EPA’s express advance written approval. This does not require either an NDA or confidentiality agreement be signed by individual employees.

The clause referenced above, “Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements-Representation” is also in the GKM contract.

If it’s not typical, why is it part of the GKM contract? If it is typical – why is it typical to have NDA’s in contracts?

All terms, conditions and requirements in the Gold King Mine contracts with Environmental Restoration are typical, since they reflect prescribed language specified in federal and/or EPA regulations. For additional detail, see response to #2.

COST OF CLEANUP

What is the cost estimate for long term-remediation for Gold King (or the Gold King area including other mines)?

There are currently no cost estimates for the long-term remediation for Gold King Mine.

How much money has been earmarked for remediation?

EPA is committed to helping the people throughout the Four Corner Regions who rely on these rivers for their drinking water, irrigation water and recreation. Because the Gold King Mine was not a National Priorities List site, there was no specific dollar amount identified for remediation. As of September 9, 2015, the estimated total costs are approximately \$8 million. Future costs will be managed as they are incurred.

Why are the cost estimated for work at the Gold King redacted?

EPA contractors are entitled to make claims of confidential business information, or CBI, before their EPA documents become public records. Redactions to this document were claimed CBI by the contractor, or made to protect EPA employee privacy and safety.

Could you please provide me with an update soonest on what other projects were being funded? And I have two other questions: How much has Environmental Restoration been paid total since it started to work on the Gold King Mine? Was any money spent down river in Regions 6 and 9 after the leak?

Your request is a much deeper dive into EPA accounting records than I can accomplish. I always try to answer as much as I can without sending reporter to FOIA. But – I want to make sure your get everything you need and I don't miss anything. You can file a FOIA online at <https://foiaonline.regulations.gov/foia/action/public/home> and it will get into a process that helps make certain you get all the items you are seeking. Here is what I was able to find out . The accounting modifications (32 and 33) were for other projects in Region 8. As I reported to you earlier, (34 and 77) made about 1.47 M in funding available for the Gold King Mine project in Colorado. I don't know how much has been drawn down by the contractor. None of this money would have been for Regions 6 or 9.

We are hoping for a response from the EPA on this morning's announcement from Silverton and San Juan county that they are asking for federal disaster funds from Congress to deal with mine clean up in the Upper Animas district. If federal disaster funds were designated for Silverton, San Juan County, would EPA be the one to do the clean up work? Did Silverton, San Juan County ever touch base with you on this resolution?

I haven't seen the resolution and can't speak to is specifically. I'd say clean up at mining sites is often expensive and can multiple years to complete. We will continue to work with communities, like Silverton, to address the historical problems posed by mining operations.

I have some questions about costs at the Gold King. I read in the Silverton paper that response to the leak has cost \$14 million so far, and that continuing work is costing \$100,000 per day. Are those numbers correct? How long do you expect this level of work (and cost) to continue? This sounds to me like it could be more costly per day than many Superfund projects. Is that the case?

You might see if there is any superfund expenditure documentation on our website. Here's what I was able to get so far. Please attribute to an EPA spokeswoman: As of Oct. 13, total expenditures were \$14,458,094

DEVIATIONS

(Unknown question about deviation and claims.)

Please see attachment with the deviation request. And here is HQ's updated response, attributable to an agency spokeswoman: EPA Regions 6, 8 and 9 have submitted to HQ for consideration a 180-day deviation for pre-award costs and fully expect such deviations to be approved. We expect to have the final decision early this week. Please be assured that EPA remains committed to ensuring that state, local and tribal entities that were critical to the initial response efforts will be given adequate time to

submit cooperative agreements.

DOCUMENT RELEASE

What is your response to the accusation that EPA has not been transparent regarding its recent release of documents?

EPA will continue to make data and information publicly available as quickly as possible. Information is posted on our website at www.epa.gov/goldminerresponse and we are operating a community hotline at 844-607-9700.

Why has it taken time to release documents?

EPA takes its commitment to transparency seriously. EPA has been compiling the documents and consulting with contractors regarding confidential business information, conducting quality assurance, and loading the documents into our document management system for public release.

Is EPA withholding information?

EPA takes its commitment to transparency seriously. Since the Gold King Mine incident, EPA has been inundated with requests for documents related to the response. EPA has posted a large number of documents on our response website, many of which are responsive to the requests from stakeholders, local communities, the media, the general public and members of Congress. EPA is continuing to identify additional documents responsive to the request and will provide them to the committee, as soon as they are available.

Who are the stakeholders in the EPA's Gold King Mine Stakeholders Alert and Notification Plan?

San Juan County Colorado, Montrose Regional Communication Center, Colorado Department of Public Safety, Colorado State Emergency Line, La Plata County Colorado, San Juan Basin Health, Southern Ute Indian Tribe, Ute Mountain Ute Tribe, Colorado Department of Public Safety, Colorado State Emergency Line, Mountain Studies Institute, New Mexico Environment Department, Office of the State Engineer, Department of Game and Fish, New Mexico Department of Agriculture, Department of Homeland Security, San Juan County, New Mexico Department of Homeland Security and Emergency Management, New Mexico Environmental Department, Navajo Nation, Navajo Nation Emergency Operations Center (NN EOC), Bureau of Reclamation, RTOC Chairman, InterTribal Council of Arizona, Arizona DEQ, Arizona Office of Emergency and Military Affairs, Arizona Department of Water Resources, Nevada DEP, CalEPA, CA State Water Board, UTDEQ, DOI

DOI REPORT

What is EPA's reaction to the DOI report that came out today?

EPA requested the Department of Interior report, Technical Evaluation of the Gold King Mine Incident, to provide an independent assessment of factors that contributed to the August 5, 2015 Gold Mine incident. EPA will carefully review the report. This report, in combination with the findings of EPA's internal review of the incident, will help inform EPA's ongoing efforts to work safely and effectively at mine sites as we carry out our mission to protect human health and the environment.

Just checking on whether EPA had any more to say on this following the statements from lawmakers calling on some responsible party to be fired or disciplined, or the report saying it wasn't tasked with determining fault. It also seems like the owner of Gold King is sending out an "I told you so" statement.

I also want to be sure you had this additional statement we put out yesterday. You can attribute to Nancy. Regarding the decision by EPA not to use a drill rig to bore into the Gold King Mine (GKM) from above and directly determine the level of the mine pool, EPA's GKM Internal Review Team found that site

conditions made it difficult to undertake such drilling to determine pressure within the mine. The Review Team identified technical challenges, safety, timing, and cost as factors in considering this technique—and also identified the steepness and instability of slopes at the site as a key safety consideration.

EPA WORK ON MINES

How does EPA monitor the maintenance and condition of mines and dams that are holding contaminated water?

EPA routinely monitors hard rock mine sites that are placed on the Superfund National Priorities List (NPL). However, EPA does not maintain records of the number of mines or tailings dams in the US. Tailings dam safety falls under the jurisdiction of State Dam Safety Agencies, and the Federal Land Management Agencies (e.g., Bureau of Land Management, Fish and Wildlife Service, National Park Service and the Forest Service) that have jurisdiction for monitoring the dams on federal lands. EPA does investigate or respond to incidents that are brought to our attention. In August 1994, the EPA report entitled "Technical Report: Design and Evaluation of Tailings Dams" noted that "EPA estimates that there may be several thousand tailings impoundments associated with active non-coal mining, and tens of thousands of inactive or abandoned impoundments."

How do government mine inspectors do their jobs?

EPA routinely monitors hard rock mine sites that are placed on the Superfund National Priorities List (NPL). EPA also investigates or responds to incidents that are brought to our attention. EPA coordinates with a team of experts (e.g. site assessment managers, risk assessors) to identify the source, nature and extent of contamination at a site to determine the appropriate remedial or removal action objectives.

The Mine Safety and Health Administration (MSHA) carries out the mandates of the Federal Mine Safety and Health Act of 1977 at all mining and mineral processing operations in the United States, regardless of size, number of employees, commodity mined, or method of extraction (www.msha.gov).

It's our understanding that 15 other mine investigations were put on hold to assess whether there were risks of another accident; do those remain on hold? If not, why not? If so, what is expectation on when that assessment will be complete?

We're compiling a list of mining sites under EPA jurisdiction where the Administrator's statement on field investigations would apply.

The "Interim Guidance" memo from James Woolford mentions 10 sites, but we were told earlier that the cease work order applied to 15. Has work resumed at five of those?

I am looking for an EPA press release/documentation lending credence to a story that The Hill ran late last week. I've provided the link to that story below. Essentially, I need to know if mine reclamation activities at these 10 sites were actually halted for the reasons provided in the story. <http://thehill.com/policy/energy-environment/253470-epa-halts-work-at-10-polluted-mines-fearing-possible-spill>

We initially identified 15 mining related sites as candidates for the pause directive, but of those, we ultimately determined to pause work at 10 of those sites. Below are the sites impacted by cease work memo. Please note that as part of the agency evaluation process, the status of a site may change.

Work Stopped Pending Further Investigation:

SW Jefferson County, Missouri, R7 - Work was stopped on a tailings dam, but residential yard removal work continues in order to address the human health threat.

Standard Mine , Colorado, R8 - Standard Mine investigation resumed on September 4, 2014 after study was conducted that showed that appropriate measures were being carried out to continue work.

Leviathan Mine, California, R9 - Ongoing AMD treatment and RI/FS work is continuing. The beaver dam removal is stopped.

Iron Mountain Mine, California, R9 - Ongoing AMD treatment and RI/FS is continuing. One planned chute plug replacement is stopped. As part of the agency evaluation process, the status of a site may change.

Field Work Initiation is on Hold:

Argonaut Mine, California, R9 - Dam retrofit design work and emergency planning efforts are underway. Discussions underway with California on emergency storm water management options.

Further Assessment Needed to Determine Whether Work Should be Conducted:

Flat Creek/Iron Mountain Mine, Montana, R8 - No mechanical activities are occurring. State has performed an EE/CA and is working on an action memo.

Upper Tenmile Creek, Montana, R8 - No site work is planned for this year.

Camp Bird Mine, Colorado, R8 - On-Scene Coordinator has been conducting the assessments and no work has been initiated.

James Creek Release, Colorado, R8 - On-Scene Coordinator has been conducting the assessments and no work has been initiated.

Eagle River, Colorado, R8 - On-Scene Coordinator has been conducting the assessments and no work has been initiated.

Among those projects was one along the Eagle River, with the cryptic note: “No further information is available.” What I’ve been told by the people at the Eagle River Watershed Council is that EPA was evaluating abandoned mines above the Eagle Mine site – a currently remediated Superfund project – to investigate possible metal loading into the river from those site. I’m told that project was completed, which is why your agency stopped work. Can you confirm this?

The Eagle River site mentioned in the Washington Post article is an abandoned mine near the Eagle River and not within the boundary of the Eagle Mine National Priorities List (NPL) site. It is a site that EPA has not yet fully assessed. On-Scene Coordinators from our Region 8 office in Denver, Colorado have been conducting the assessments and no work has been initiated.

It would be great if I could get a few quotes from someone there. Is there anyone I could talk with briefly-- maybe just about the EPA's work with abandoned mines in general?

Abandoned mines are a complicated issue to address, involving mine engineering, biogeochemistry, and hydrogeology in locations that are frequently remote. There are hundreds of thousands of abandoned hardrock mines in the United States. There is no one Federal agency that has overall authority to respond to these mines, and the funding the federal agencies have to address these mines is limited. However, EPA has worked successfully to address environmental concerns at hundreds of abandoned mine sites across the West. From Mathy Stanislaus's testimony on September 9 before the House Science and Technology Committee: To help address the legacy of hardrock mining across the country, the Administration has proposed in the FY 2016 and prior budgets to create an Abandoned Mines Lands (AML) Program for hardrock mines. The program would be funded through a new AML fee which would hold the hardrock mining industry responsible for the remediation of abandoned hardrock mines, just as the coal mining industry pays to reclaim abandoned coal mines.

Throughout its history, EPA has worked successfully to address environmental concerns at hundreds of abandoned mine sites across the West. However, in total, the United States has hundreds of thousands of abandoned mine sites. The problem of abandoned mines is large in scope and complexity. The Administration has proposed in the FY 2016 and prior budgets to create an Abandoned Mines Lands

(AML) Program for hardrock mines. The program would be funded through a new AML fee which would hold the hardrock mining industry responsible for the remediation of abandoned hardrock mines, just as the coal mining industry pays to reclaim abandoned coal mines.

Last, I saw a report this weekend on the EPA halting work at other mines to prevent blowouts similar to the spill last month. Can you confirm if this report is accurate? <http://wapo.st/1Qwl3mM>

On September 4, 2015, EPA issued the "Interim Guidance for Continuation of Work and Development of Comprehensive List of Superfund Mining and Mineral Processing Sites". This report can be found online at: <http://www2.epa.gov/goldkingmine/september-8-2015-documents-related-mine-work-and-stakeholder-notifications>

To confirm, is investigative field work at other mines still suspended, as McCarthy announced on August 12? [Asked on 10/22]

We flagged 15 mines as potentially posing similar risks to Gold King Mine. No work was planned in the immediate future at five of those mines. We either continued work or stopped planned work at the remaining 10 mines. Of those, there is currently ongoing work at six sites in order to prevent an immediate risk to human health or environmental safety. Thanks, please let us know if we can help with anything else.

There are still hundreds of leaking mines across the U.S. Is the EPA aware of this and do you plan on working on any other projects?

There are currently 137 abandoned hardrock mines and mineral processing sites proposed, final, or deleted from the National Priorities List (NPL) as well as mining sites being cleaned up using the Superfund Alternative Approach (SAA). Information provided online for each site highlights the state and EPA Region in which the site is located, provides a current status update of the site and links to additional information about the site.

HUMAN HEALTH ISSUES

Will crops in this area be safe for human consumption?

We are certain that crops are safe for consumption. When the plume came through, irrigation ditches that impacted crops and livestock were shut down. Water quality data show the water meets criteria for agricultural purposes established by the state of Colorado.

What information do you have on the testing of drinking wells?

GET UPDATED NUMBERS FROM AREA COMMAND BEFORE SENDING: As of Aug. 25, we have tested 310 private wells in Colorado and 114 private wells in New Mexico. After the initial round of sampling, we identified seven wells that required a follow-up test. Following the confirmation tests, only two of the original seven wells still indicated exceedances for Arsenic, Iron and Manganese. These two wells are located near Durango, CO, between Baker's Bridge and the 32nd St. Bridge. These homes are being provided bottled water and the EPA is coordinating with the Colorado Department of Public Health and the Environment, LaPlata County and the homeowners to explore next steps.

[Also see 9/19 Press Release on Gold King Mine website for most recent update.]

After testing 282 private wells in CO and 114 in New Mexico for a total of 396 wells, how many had exceedances?

Of 396 tests, seven private wells had initial exceedances and two had confirmed exceedances.

What were the levels of arsenic, iron and manganese?

Information regarding private domestic well sampling is provided directly to well owners and is not being

released to the public.

For analytes listed in the tables of data results (including arsenic, cadmium, chromium, lead, iron, barium, etc) can you please provide corresponding EPA water quality criteria?

For emergency response purposes, EPA uses Recreational and Agricultural uses as measurement criteria rather than water quality criteria. We consider these tools to be better suited to assessing risks to the primary uses and exposure pathways. These values are established by each state.

Can you clarify the statement: "EPA's long-term concern is the effect of metals deposited in sediments in the entire watershed and their release during high-water events and from long periods of recreational use"? What exactly is the fear of the effect of sediments on long periods of recreational use? Is the worry of the recreational use on stirring up the sediments or on the impacts of humans who recreate often in the rivers?

For surface water, the recreation-based screening levels assume that the adult or child would receive all of their daily water intake (2 liters/day) from the river over a continuous 64 day period. For sediment, the recreation-based screening levels are based on a hiker/camper that may become exposed to sediments alongside the riverbank over a continuous 64-day period. These RSLs are conservative, representing levels that are not expected to cause adverse effects over an extended period of time, based on a continuous 64-day exposure. These screening criteria represent the most conservative scenario for recreational users. Since we know water will drop out of the water – we are also testing sediments.

(Additional response: Risks to humans from metals in the sediments are based upon the total exposure a person may have over a given period of time. Exposure from sediments would be from hand to mouth exposures. We want to ensure that the concentration of metals in the sediments are sufficiently low enough to ensure that a recreational person will not be exposed to harmful levels of metals over a period of time expected that the person would be recreating.)

Has a survey taken place on the river fish and the impact of their exposure to the plume?

I understand FDA has responded to your question stating that 'no FDA regulated products have been found to date which were exposed to potentially contaminated water from the spill'. FDA is the correct agency to provide you with this evaluation. I wanted to also share a copy of the Sept. 2 Colorado Department of Public Health and Environment regarding trout from the Animas River. It includes contact information should you want to follow up directly with them.

NAVAJO NATION

Navajo officials and local farmers say that a water tank provided by the EPA for their use for agricultural purposes is contaminated. Has EPA checked this out?

THIS RESPONSE WILL NEED TO BE UPDATED ON AN ONGOING BASIS, DO NOT SEND WITHOUT UPDATING: The U.S. EPA is working closely with Navajo Nation authorities to investigate a recent complaint about water contamination in one tank provided by U.S. EPA for agricultural purposes in the Shiprock, New Mexico area. Aside from this complaint, EPA has received no other complaints about tank water contamination.

Following the Gold King Mine release, an EPA contractor has been providing storage and delivery of agricultural water in Shiprock and other parts of the Navajo Nation. EPA did not administer distribution of water from the tanks. Specifically, thirteen tanks were deployed to provide watering service within the Navajo Nation following the Gold King Mine release, which impacted the San Juan River. Nine of these tanks were deployed in the Shiprock area. These tanks were sourced from the water division of Triple S Trucking Company, an Aztec, N.M.-based tanker truck company. According to the contractor, the tanks were steam cleaned and inspected prior to use at Shiprock. Water distributed by Triple S tanks, under contract to EPA, was provided by the Bloomfield Utility Department, the municipal water utility company

for the City of Bloomfield, N.M.

Based on EPA surface water data collected following the August 5, 2015 Gold King Mine release, San Juan River water quality in the Navajo Nation has returned to pre-event conditions. This determination is based on a review of water quality data collected from August 7-15, 2015 at EPA's sampling point near Hogback, N.M. EPA Administrator Gina McCarthy and Navajo Nation President Russell Begaye had a productive phone conversation on August 19 to review water quality data. It was agreed on that call, that Friday August 21, would be the last day for EPA water deliveries for agricultural use on the Navajo Nation. EPA will continue to work with the Navajo Nation in the coming weeks to ensure that a long-term monitoring plan for the San Juan River is implemented. In addition, EPA is positioned to provide technical assistance in flushing irrigation ditches on the Navajo Nation.

What is being done to provide water to the Navajo Nation?

EPA and the Navajo Nation agreed that Friday Aug. 21 would be the last day that EPA would make agricultural water available on the Navajo Nation. As of August 21, EPA had provided a total of 418,000 gallons of water for livestock and agriculture. EPA is currently working with federal and tribal partners to evaluate alternative methods of supporting water delivery.

EPA continues to provide hay for livestock, and has delivered a total of [3,556/2,304] bales to date. EPA has also provided technical assistance to the Navajo Nation for irrigation ditch flushing, similar to the assistance provided in Colorado and Utah, and believe the irrigation ditch water is suitable for use.

Based on EPA sampling data at Hogback, N.M, San Juan River water quality has returned to pre-event conditions. The City of Durango has resumed taking water from the Animas River for use in their drinking water system, the State of New Mexico has lifted restrictions on the use of the San Juan River for drinking water, and the State of Utah has lifted restrictions for using San Juan River water for irrigation and livestock watering.

EPA and its federal partners continue to evaluate the need for resources and to engage the Navajo Nation.

Can you say whether any of the Navajo farmers have submitted compensation claims yet?

The agency has not yet received any claims from members of the Navajo Nation. They have two years to file a claim for consideration.

Do you have any comment on the September 4 statement by Navajo President Begaye?

Sent her Jared's letter to President Begaye, the FEMA response to their request for assistance and asked her to look at the most recent data and press release on the status of the San Juan. (Followed up with this additional info: <http://www2.epa.gov/goldkingmine/epa-update-gold-king-mine-response-navajo-nation-additional-data-public-records> Specifically for Navajo Nation, EPA's conclusions are based on comparisons of San Juan River water and sediment data to EPA and Navajo EPA standards. Results consistent with this data set have been utilized by other jurisdictions along the Animas and San Juan Rivers to lift use restrictions for irrigation, livestock watering, and recreational purposes. Last night, Navajo Nation President Russell Begaye gave the directive to open the Fruitland Irrigation canal, which delivers water from the San Juan River for irrigation to three Navajo chapters.)

Is there someone who can chat with me briefly this AM about the effects of the Gold King mine spill on the Navajo Nation? The tribal leadership has issued a steady stream of rhetoric about 'cultural and economic devastation' and I'd like to hear the EPA's side of this. How has the Gold King mine spill affected the Navajo Nation? Is there science to back up the nation's claim of economic/cultural devastation?

Reporter asked about the economic and cultural damage GKM spill caused to Navajo. She needed clarification on the status of water quality. Jared confirmed that the watershed is at pre-existing conditions and has been for a while now. He pointed to 2011-2013 data that shows variability to the river regardless of spill conditions. Jared explained Navajo doesn't use San Juan for drinking water purposes, instead drawing from wells in the area. Reporter asked about the Navajo Nation's decision not to open the river for irrigation and livestock consumption purposes. Jared reiterated our role is to provide data, and that Navajo as a sovereign government has to decide what to do with that information. She

pushed for comment on why Navajo would keep the river closed if science says that it's safe. Jared said that's a question for Navajo. She also asked Jared to speculate as to whether or not Navajo has been affected more so than other communities by the spill, because of their heavy reliance on agricultural. Jared again said that's a question for Navajo, emphasizing the resources we provide to Navajo Nation EPA, including 3 native speakers, close to 70 people in the regional office, and repeated our commitment to provide additional support for any cultural needs of Navajo Nation.

I am working on a short story about the Gold King Mine spill ahead of tomorrow's hearing, and I would like to please request an interview with someone to discuss the EPA's response thus far, particularly as it pertains to the Navajo nation. Is there someone available for a short, recorded interview on this topic today? If so, I would like to please request that the guest record their side of the interview with a smartphone to ensure optimum audio quality. I have attached instructions.

Reporter asked generally how the cleanup is going and how Navajo has been affected. Jared said the San Juan has returned to pre-event conditions, and that it was mostly the agricultural operations that were affected, not drinking water needs. He talked about the longstanding relationship EPA has with Navajo and the resources and support we provide to them. She asked about the claims process, how many claims had been filed, what EPA has done to help people navigate submitting the forms, and for Jared's reaction to President Begaye's assertion that Navajo will pursue a lawsuit. Jared said we've helped folks figure out how to submit claims forms, but he's not aware of any claims or lawsuits that have been filed. He also told her that our relationship with Navajo is good and communication has been consistent. EPA provided data to Navajo so they can make a decision about opening the river for irrigation and livestock consumption purposes. Reporter asked why it was necessary for EPA to send tanks. Jared said they asked for us to send water for irrigation and livestock, and that we, along with BIA, provided that assistance.

I'm a reporter with NBC Phoenix – Erin Brockovich toured parts of the Navajo Nation today and expressed a lot of criticism toward the EPA for the Gold King Mine Spill. She said she is "disgusted" with the EPA and has witness similar situations regarding natural resource contamination at the hands of the EPA across the country. Here is another direct quote from my interview with her: "Should there be criminal charges? Should whoever was in charge of the breach be looked at criminally? Of course. But will it happen? Probably not. The system is broke and the agency is an absolute failure." Any response from the EPA toward these comments? Also, Navajo Nation president Russell Begaye said he is not pleased the EPA is not providing further testing to the San Juan River or continuing to work to help supply irrigation water to the Navajo people. My deadline is 5:30 p.m. Arizona time – would like to include something from the EPA in my story please.

To determine what happened and help prevent it from happening again, EPA completed an internal review of the activities leading up to the incident and made those findings and recommendations available to the public. In addition, we have shared our internal review with the Department of Interior which is conducting an independent review of the incident and the Agency's Inspector General who is also conducting an investigation. We have a long-term relationship with the Navajo Nation and is committed to working collaboratively with the Tribe on response activities related to the Gold King Mine release. Since August 13, EPA has had a full-time liaison officer to the Navajo Nation's Command Center in Window Rock to discuss and plan ongoing activities and we continue holding regular calls with the Navajo Nation since the spill. (Letter to the Navajo Nation attached)

The Navajos said late Friday that EPA and FEMA declined the tribe's request for continued assistance in the wake of the Gold King spill. What's the agency's position here? What requests have been denied? These questions apply to FEMA as well.

I'd defer to FEMA to respond to your question. Attached is a copy of their letter if you haven't seen it.

Erin Brockovich is touring the Navajo Nation today. During an address in Shiprock she stated the agency isn't telling the truth about the amount of wastewater spilled from the mine, suggesting it was far more than 3 million gallons. The Navajo president has asserted the same. Can you please weigh in here?

Here is the information regarding the calculation of the release as it made its way downstream. Perhaps

their reference is to the continued flow from the mine. You can find information about flow rates in one of the attachments to our internal review - which has a nice historical summary too. Based upon 2009-2014 flow data, the average annual discharge from the Gold King Mine and three nearby mines (Mogul, Red and Bonita, and American Tunnel) reached approximately 330 million gallons per year. USGS measured increased flows at a streamgage starting at about 12:30 p.m. and ending about 7:15 p.m. This resulted in a provisional calculated flow volume of 3,043,067 gallons discharged from the Gold King Mine. The EPA's original estimate of 1 million gallons discharged from the Gold King Mine was based on an estimate of the size of the adit. A streamgage is an instrument that measures volume by measuring flow, which is much more precise.

The Navajos said late 9/4 that EPA and FEMA declined the tribe's request for continued assistance in the wake of the Gold King spill. What's the agency's position here? What requests have been denied?

Reporter asked about the Navajo Nation's decision not to open the river for irrigation and livestock consumption purposes. Jared reiterated our role is to provide data, and that Navajo as a sovereign government has to decide what to do with that information. She pushed for comment on why Navajo would keep the river closed if science says that it's safe. Jared said that's a question for Navajo. She also asked Jared to speculate as to whether or not Navajo has been affected more so than other communities by the spill, because of their heavy reliance on agricultural. Jared again said that's a question for Navajo, emphasizing the resources we provide to Navajo Nation EPA, including 3 native speakers, close to 70 people in the regional office, and repeated our commitment to provide additional support for any cultural needs of Navajo Nation.

I'm wondering if you might be able to give me the EPA's position on Navajo Nation President Russell Begaye's recent statement below. He asserts that the EPA, and FEMA, won't be offering further assistance to the tribe following the Gold King Mine spill. Is this true, in regard to the EPA?

We have a long-term relationship with the Navajo Nation and is committed to working collaboratively with the Tribe on response activities related to the Gold King Mine release. Since August 13, EPA has had a full-time liaison officer to the Navajo Nation's Command Center in Window Rock to discuss and plan ongoing activities. We continue holding regular calls with the Navajo Nation since the spill and had one yesterday (9/8). We have identified a number of areas for collaboration and assistance between EPA and the Navajo Nation. This is by no means a comprehensive list, but rather a way to initiate discussions regarding specific items to address the Navajo Nations short-term and long-term needs in connection with the Gold King Mine incident. Our goal would be for our teams to work together to prioritize action items.

Reimbursement for Response Costs:

EPA is committed to reimburse all eligible response costs incurred by the Navajo Nation. This could include Navajo Nation expenses incurred in carrying out temporary emergency measures during this incident. The mechanism would be in the form of a Cooperative Agreement. In addition to reimbursement of eligible response costs, we have discussed a number shorter term items to assist the Navajo related to the incident, including:

Data: Explore third party interpretation/validation of pre-incident and incident data sets; and Assist Navajo Nation EPA or third party with the collection and analysis of additional sediment and shoreline samples

Risk Communication: Assist with messaging of incident related potential risks to crops and livestock for farmers, ranchers and other members of the Navajo Nation. In addition, we would like to work with the Navajo Nation on longer term issues:

Cultural Resources: Help characterize incident-related impacts to the Navajo Nation's cultural resources and

Long Term Watershed Monitoring: Support the Navajo Nation inputs and engagement into the long term watershed monitoring strategy.

Does EPA have a response to President Russell Begaye's request the Upper Animas Mining District be listed on the NPL as a Superfund site?

We will review President Begaye's letter and respond appropriately.

Can we have an on-camera interview with Jared to discuss the effect of the spill on Navajo Nation while they're in Farmington on Monday?

Attached is a letter Regional Administrator Jared Blumenfeld sent to Navajo Nation President Begaye last Thursday. It outlines EPA and Navajo's progress on Gold King Mine, specifically noting the feedback the Navajo Attorney General gave confirming that the water in the EPA tanks met Navajo water quality standards. Below is the most recent press release specifically addressing water quality in the San Juan: <http://www2.epa.gov/goldkingmine/epa-update-gold-king-mine-response-san-juan-river-data>. And this last link specifically addresses water quality affecting Navajo Nation: <http://www2.epa.gov/goldkingmine/epa-update-gold-king-mine-response-navajo-nation-additional-data-public-records>.

Is it true that EPA's response to the toxic spill is legal maneuvering, without regard to the public health and livelihood of the Navajo people?

The EPA's focus is the public health of all people affected by this tragic event. Senior agency staff have been talking with Navajo Nation leaders and meeting with tribes within the Navajo Nation, and are working hard to address their concerns and meet their needs.

Is it true that EPA removed water it was supplying to the Nation for their crops without prior notice? President Begaye says that in a phone call with Gina M. that she said EPA did not do so. He disagrees.

President Begaye and Administrator discussed in a phone call that the river had returned to pre-event conditions and that because of that EPA would stop delivering water after August 21st. This conversation was also documented in a press release issued on August 19th. In early September EPA demobilized and retrieved 5 tanks; another 6 EPA tanks remain in Navajo Nation and will remain until they're empty. BIA continues to provide water at Shiprock and Hogback.

Data gathered by EPA and by Navajo has determined that the San Juan River has returned to pre-event conditions. The Navajo Nation EPA indicated that the water in the San Juan River is suitable for irrigation of crops. Nevertheless, the Navajo Nation has maintained irrigation and livestock restrictions on most of the river and has asked community members to put a resolution before their respective chapters to vote on opening the river for irrigation. 3 chapters just west of Farmington requested lifting all restrictions and received permission to lift irrigation restrictions on 8/28.

Did the EPA send an alert as early as Monday that more contaminants were released and are heading to the Nation's waterways?

A "Notification Only" alert level per the *Gold King Mine Stakeholders Alert and Notification Plan* was issued on September 12 for "...an identified non-mine site related event affecting Cement Creek or the Animas River that will not pose a physical or safety concern for downstream users...". This event was a temporary increase in the turbidity in Cement Creek that has now largely dissipated.

Ok, here are some comments President Begaye made in our interview that I wanted to run by you guys. Let me know if you have comment or background on this (or if you've already made public comment that I missed). Thanks.

-He said the USDA wants to help with removal of riverbed contaminants "but the EPA is stopping them."

EPA is unaware of any proposal by USDA to clean up river sediment.

In September, USDA Rural Development and Texas Tech circulated a proposal to use an XRF to survey river bank sediments. EPA was not involved in this proposal and didn't prevent its implementation. Please contact USDA Rural Development and/or Texas Tech for information on their proposal.

Decisions for sediment cleanup will vary greatly through the watershed, with decisions made first at the source near Silverton. Decisions for the source cleanup may be much different from decisions throughout the watershed. EPA is currently conducting a one-year monitoring study of the Animas-San Juan watershed that includes sediments and storm-event sampling. EPA will determine what additional response, if any, is needed based upon the information provided by this study.

We believe it's important to note that, as stated in the BOR external report, the orange/yellow sediment is iron-oxhydroxide (i.e., a form of rust). Although the yellow/orange sediment may build up along some parts of the river, it is in a chemically stable form and is not a human health hazard.

-He said the EPA had pressured some Navajo farmers to sign paperwork taking immediate financial compensation for their losses due to the spill but forfeiting the rights to future compensation. He said this is a problem given that the EPA has said clean-up could take decades.

EPA personnel never distributed standard claim forms (SF-95) on the Navajo Nation. Following the spill, these forms were made available at community meetings in Colorado and New Mexico. When claim-related questions were raised during meetings with Navajo community members, due to concerns raised by Navajo Nation about the claims process, EPA staff referred individuals with questions to the Navajo Nation's Attorney General's office, or to information available on the EPA website here:

<http://www2.epa.gov/goldkingmine/claims-process-and-standard-form-95-damage-injury-or-death-result-gold-king-mine>

-He said the Indian Health Service told the they had the funds to pay for drilling 12 wells along the San Juan river to provide livestock drinking water, but that the EPA said it would deal with the livestock drinking water problem, and that it hasn't.

On August 19, based on EPA surface water data collected following the August 5, 2015 Gold King Mine release, EPA determined that San Juan River Water quality in the Navajo Nation returned to pre-event conditions. EPA Administrator Gina McCarthy discussed this determination with Navajo Nation President Russell Begaye on August 19. In the middle of August, state and local decision-makers both upstream and downstream from Navajo Nation lifted water restrictions, including restrictions for livestock, along the Animas and San Juan Rivers. On October 15, the Navajo Nation President's Office issued a notice indicating that San Juan River water was safe for livestock and irrigation use.

EPA is not aware of the status of IHS funding for drilling 12 wells for livestock drinking water. We suggest confirming this with John Hubbard, the Navajo Area Director of the Indian Health Service.

-Speaking generally, Begaye said the EPA has only provided limited help and that he believes this is because doing more to take responsibility for damage could make them more liable in court.

EPA's deployment to the Navajo Nation following the August 5 Gold King Mine release was extensive. EPA Region 9 alone deployed well over 30 personnel, the majority of whom were at the Incident Command Post (ICP) in Farmington, New Mexico. The Farmington ICP ran operations for sampling on the San Juan River and delivery of hay and water on Navajo Nation. EPA provided nearly 8,500 bales of hay to Navajo communities along the San Juan River. EPA and the Bureau of Indian Affairs (supported by EPA funding) provided over one million gallons of livestock and agricultural water to farmers and ranchers on the Navajo Nation.

The responses below have not been sent out to press, working on updating our internal information:

Navajo Nation was notified of a spill by EPA Region 9 at 9:58pm PT on 8/6/15. Who specifically was notified then?

USEPA first notified the Diane Malone with the Navajo Nation Environmental Protection Agency (NNEPA) and David Taylor with the Navajo Nation Department of Justice (NNDJ) of the release in an email sent the evening of 8/6.

EPA began delivering livestock irrigation water to Navajo Nation and has delivered 13 tanks, each containing 16,000 gallons of water, throughout the San Juan River corridor. How many tanks are now empty and have been picked up? Is this the total? What was the timeframe of the deliveries?

Starting August 13, USEPA deployed 13 tanks throughout the San Juan River corridor with the original intent of providing water for irrigation purposes. Drinking water from Bloomfield, N.M. was used to fill these tanks, and the water was suitable for irrigation and livestock purposes. EPA sampling results, as well as sampling results from NNEPA, confirmed that water in the tanks met all applicable NN water quality standards. Of these 13 tanks, five have been emptied and removed. The remaining eight may still have water in them, and will be removed when empty.

EPA has delivered nearly 5000 bales of hay to Navajo ranchers and farmers to ensure livestock has access to food while their movement and grazing was constrained because of restrictions on the San Juan River. These deliveries will continue through at least September 18, 2015. What is the update on this and current numbers?

[On 9/18] EPA has delivered nearly 6,000 bales of hay to Navajo ranchers and farmers to date. These deliveries will continue through September 30, 2015.

EPA will pay \$45,000 for the Navajo Tribal Utility Authority's delivery of 31,500 gallons of emergency drinking water to the 420-person community of Montezuma Creek, Utah for 25 days. Is this a current statement?

Yes, this is accurate. On August 27, NNEPA noted in a letter to Navajo Tribal Utility Authority, that the river posed no threat to the public water system at Montezuma Creek.

OTHER MINES

Is the Red and Bonita mine connected to the Gold King Mine?

We have assessed the Red and Bonita mine and to our knowledge, it is not hydraulically connected to the Gold King Mine.

Are there any other efforts underway with other nearby mines?

The removal assessment at the Gold King Mine had been planned in conjunction with a plan to install a bulkhead (plug) at the nearby Red and Bonita Mine.

What will EPA doing about other potential mine work?

Once the investigations stemming from the Gold King Mine incident are completed, EPA will issue guidance on future mine work.

Can you tell me about the work being done in the Ophir area?

The area around Ophir is part of the "Iron Springs Mining District." There are several sites (areas) that are being addressed in this district. They include:

1. Silver Bell Tailings – was cleaned up jointly by EPA and USFS. It is completed.
2. Carribeau Tailings & Draining Adit – Joint effort by EPA and USFS – this project is in the planning phase. The plan is to move the tailings to a repository. For the flowing adit, the plan is to make the drainage permanent and to direct the discharge to some settling ponds with no treatment. Implementation of the plans for this project would be on hold per the Administrator's directive.
3. Carbonaro Adit – This site is being investigated by DRMS under EPA direction. The plan is to conduct an investigation by opening up the adit to determine if clean water can be diverted away from the mineralized zone and determine where a plug can be placed. This project is on hold per the Administrator's directive.
4. A joint project between EPA & USFS at the North Star Tailings to move the tailings to a repository was completed sometime ago.

Is additional work planned for any nearby mines that are interrelated with Gold King? Please provide names of those mines, what work is being considered and any timeline for when it will be conducted.

EPA is conducting ongoing investigations at several mines, including the nearby Red and Bonita mine, to determine the nature and extent of the contamination in the Upper Animas Mining District Site, including discharging mine adits.

How many mine sites are impacted by the Administrator's cease work order for field investigations at other mine sites?

EPA is compiling a list of mining sites under EPA jurisdiction where the Administrator's statement on field investigations would apply.

Does the order apply to cleanup work that is ongoing or simply investigative work that would come before a cleanup?

This does not mean cleanup work will stop. Ongoing cleanup work that is necessary to protect human health and the environment will continue unless there is a reason to evaluate a site specific situation.

Does the EPA maintain a database of mines on non-public lands? Can you provide this list?

The Superfund National Priorities List (NPL) Mining and Mineral Processing Site contains information about mining sites and mineral processing in general. You can access this information at <http://www.epa.gov/superfund/programs/aml/amlsite/npl/htm>

AMLs are defined as those lands, waters and surrounding watersheds where extraction, beneficiation or processing of ores and minerals has occurred.

Is additional work planned for any nearby mines that are interrelated with Gold King? Please provide names of those mines, what work is being considered and any timeline for when it will be conducted?

EPA is conducting ongoing investigations at several mines, including the nearby Red and Bonita mine, to determine the nature and extent of the contamination in the Upper Animas Mining District Site, including discharging mine edits.

Does EPA have other documentation showing blow-out risk at other mines in Colorado?

This request will require extensive file review by the agency. We do not know of documentation showing blow-out risk at other mines in Colorado that can be shared with you immediately.

What does this mean for other mines, specifically those in South Carolina?

EPA has worked successfully to address environmental concerns at hundreds of abandoned mine sites across the West. EPA will thoroughly investigate this incident, and it is committed to applying all lessons learned to its work as it moves forward.

While EPA continues to investigate the root causes of the release of mining waste at the Gold King Mine, all EPA regional offices will immediately cease any field investigation work at mines, including tailings facilities.

U.S. Environmental Protection Agency (EPA) released the findings of an internal review of the agency's response to the Gold King Mine incident. Led by five EPA personnel from multiple EPA regions and Headquarters, the reviewers were tasked with developing a detailed, chronological description of events as well as identifying potential factors contributing to the release.

The report provides observations, conclusions, and recommendations that regions may apply to ongoing and planned site assessments, investigations, and construction or removal projects at similar types of sites across the country. EPA will implement all the recommendations from the report and has shared its

findings with external reviewers.

In addition to the internal review, the U.S. Department of the Interior (DOI) is leading an independent assessment of the factors that led to the Gold King Mine incident. The assessment began on Tuesday, August 18, and it is anticipated that DOI will provide the assessment report to EPA and the public within 60 days. The goal of DOI's independent review is to provide EPA with an analysis of the incident that took place at Gold King Mine, including the contributing causes. Details about the independent review will be made available by DOI when they become available. Both internal and external reviews will help inform EPA with ongoing and planned site assessments, investigations, and construction or removal projects.

Based on the outcome, EPA will determine what actions may be necessary to avoid similar incidents at other sites.

While EPA stops work on existing field investigations and assessments at these mining sites, EPA also is instructing its regional offices to identify existing sites with similarities to the Gold King Mine site, to identify any potential immediate threats and to consider appropriate response actions.

Can you provide a list of mine sites where the EPA has entered into agreements similar to the one with the Animas River Stakeholders Group?

So far we've identified two Good Samaritan sites that have had Administrative Orders on Consent for Removal Action (AOCs): American Fork Canyon and Kerber Creek.

American Fork Canyon [http](http://1.usa.gov/1PwWFAe)

This site had two Administrative Orders on Consent for Removal Action (AOC). One AOC addressed construction of an access road and another addressed moving some waste rock. Both were with Trout Unlimited.

Here is some additional information on American Fork Canyon you might find useful:

[://1.usa.gov/1PwWFAe](http://1.usa.gov/1PwWFAe)

Kerber Creek

For additional information on Kerber Creek: <http://kerbercreek.org/>

What is the current condition of dams or containment walls that hold back water at the Barite Hill site?

A spillway was constructed during the removal action to prevent the catastrophic release of contaminated water from the Main Pit. The walls of the main pit and the spillway appear to be sound and do not pose a risk of failure.

Is there any seepage through pond walls or dams?

No, there does not appear to be seepage through the walls or spillway. There are some seeps at the base of the pit, but these seeps do not compromise the integrity of the pit walls or spillway. Furthermore, it is suspected that the seeps are not from the pond, but rather they are groundwater.

Have there been any releases from any of the Barite ponds to nearby creeks in the past year?

No releases from the ponds have been documented in the past year.

Can you give me more information on the interagency agreement the EPA has with the Bureau of Reclamation regarding the Leadville Mine Drainage Tunnel? When did that agreement officially happen? What is the EPA's role in that agreement?

An interagency agreement is a document, generally between government agencies and departments, that defines cooperative work between them. The agreement defines the parties involved, the work performed

and the transfer of technologies and funds. Starting in 1994, EPA had a broad interagency agreement with the US Bureau of Reclamation to provide technical assistance in remedial investigation, feasibility studies, proposed plans, and reports supporting records of decisions at the California Gulch Superfund site. Additionally the US Bureau of Reclamation provided technical assistance in the remedial design, response actions and remedial action for Operable Unit 6, the Stray Horse Gulch area. Technical assistance included project management, scheduling, contracting, community relations, cultural resource surveys, engineering, hydrologic (surface and groundwater) and mine land reclamation. EPA paid the US Bureau of Reclamation for the services provided. The amended record of decision for Operable Unit 6 was signed in September 2010. (More information about the California Gulch Superfund Site can be found at <http://www2.epa.gov/region8/california-gulch> .) To help clarify EPA's and the US Bureau of Reclamation's roles going forward in 2010, the previous interagency agreement was replaced with an interagency agreement specific to the work in Operable Unit 6, Stray Horse Gulch, for which the EPA pays for completed work. The Statement of Work provides for the US Bureau of Reclamation to perform the following activities to support EPA: 1. Treat and monitor water that EPA puts into the Leadville Mine Drainage Tunnel. Treatment includes reducing the acidity of the water, removing heavy metals from the water and disposal of the produced sludge. Monitor water that enters the Marion Shaft via the Marion Pond, includes measuring the volume and maintaining of the monitoring system. 2. Provide technical support which may include design of diversion ditches and retention ponds as needed. 3. Provide consultation which may include advice on drainage system as needed. Note: The parts of the Leadville Mine Drainage Tunnel are in Operable Unit 6, Stray Horse Gulch of the California Gulch Superfund Site.

Will plugging the R&B increase flows from the GKM?

EPA is not aware of direct mining tunnel connections between the Red & Bonita Mine and the Gold King Mine, though there may be hydraulic connections. Thus, as work is completed at the Red & Bonita Mine, EPA plans to monitor flow rates at the Gold King Mine. EPA plans to address any flow rate concerns at the Gold King Mine by the flow-through bulkhead at the Red & Bonita Mine. A flow-through bulkhead allows mine pool water levels and hydraulic pressure to be controlled through opening or closing of a gate valve.

OTHER MINES: BREWER MINE, SC

EPA had spent \$7 million treating water from 2007 to 2014 at the Brewer site - Please provide the updated cost as of this year.

\$8 million.

There are 18 million gallons (MG) of contaminated water in Pad 6, correct?

The Pad-6 Pond contains about 200,000 gallons and is not allowed to accumulate more than 2.5 million gallons. The pond has the ability to store 18 million gallons.

What contaminants are contained in that water?

The water contains several dissolved metals including iron and manganese. See attached table. (Note that micrograms per liter (ug/l) are parts per billion and milligrams per liter (mg/l) are parts per million.)

Please list other contaminated basins at the Brewer site and how many gallons of water are in them?

There is a 6 million gallon sediment control pond at the site.

Is the Pad 6 pond, or other ponds, held back by an earthen dam or dams?

The Pad 6 pond and the sediment control pond are contained by maintained and engineered earthen dams.

What is the condition of those dams or containment walls? Is there any seepage?

The dams for both of the ponds are maintained and in good condition. There has been no visible seepage through the dams to date.

Please explain whether EPA is doing anything differently at the Brewer gold mine site in light of the Animas River spill in Colorado.

EPA has also asked regional offices to identify existing sites with similarities to the Gold King Mine site to identify any potential immediate threats and to consider appropriate response actions. This effort is currently underway.

How was the work being done on the Animas River alike or different than work being done at the Brewer gold mine in South Carolina?

The Brewer Gold Mine is not an underground mine like the Gold King Mine in Colorado.

Is there any concern that a spill like that on the Animas River could occur at the Brewer gold mine?

EPA has asked regional offices to identify existing sites with similarities to the Gold King Mine site to identify any potential immediate threats and to consider appropriate response actions. This effort is currently underway.

At the Brewer mine, what is the status of the new water treatment plant? Has construction started? When will it be completed?

The new water treatment plant is still in the design phase. Construction of the water treatment plant will likely not start for at least two more years.

How does the Pad 6 pond relate to the existing water treatment system? Would it be replaced when a new system is built?

The Pad 6 pond is used for storing untreated water prior to treatment. The pond will be replaced by a new water storage pond once the new treatment plant is fully operational.

Explain the process for treating water at Brewer. After collecting the water, how is it treated before it is released?

Water is pumped through the treatment plant where lime slurry is used to neutralize the acidic water and cause the dissolved metals to become insoluble and settle out as sludge. The sludge is dried and stockpiled on site. The treated water is tested to make sure it is clean and then pumped either to the discharge point in Little Fork Creek or to the two clean water storage ponds. The water in the clean water storage ponds is ultimately discharged to Little Fork Creek.

Was the limestone drain issue related to the treatment pond or to some other feature at the Brewer site?

The limestone drain is not related to the treatment ponds. The limestone drain was incorporated into the backfilled and capped surface pit when it was reclaimed by the Brewer Gold mining company in the 1990s. The company planned for the ground water in the backfilled pit to rise to the elevation of the limestone drain and ultimately discharge through it as a means of treating the AMD water rising in the backfilled pit. Unfortunately, the groundwater in the pit began discharging via springs and seeps to the surface at an elevation well below the limestone drain. The AMD water has been collected and treated ever since. First by the mining company then by the EPA when the mining company abandoned the site

in 1999.

When would EPA turn the Brewer mine site over to the state of South Carolina?

EPA will turn the operation of the new water treatment plant over to the state of South Carolina once the treatment plant is running and operating reliably and consistently.

Would it be possible to visit the Brewer mine site this week?

We can arrange a tour in the future.

OTHER MINES: SUNNYSIDE

Is EPA aware of water buildup inside the Sunnyside Mine?

Yes. The Sunnyside Gold Corporation, pursuant to its mining permit and an agreement with the State of Colorado, installed bulkheads in the American Tunnel in several locations in the late 1990s and early 2000s. The American Tunnel drained the Sunnyside Gold Mine workings during the mine's operating years. When the bulkheads were installed, water elevations rose in the mountain and flooded the Sunnyside Gold mine workings. EPA understands that the water levels in mine pool have been stable for several years. The Colorado Division of Reclamation, Mining and Safety (DRMS) would be a good resource for additional information and estimates on volume.

Does the agency have any concerns about a potential spill from Sunnyside?

We have no information indicating an immediate risk of a release from the Sunnyside Mine. EPA will be working with our partners at Colorado Division of Reclamation, Mining & Safety (CDRMS) to evaluate the Gold King Mine release and its impact on conditions in the area to determine if additional measures are necessary to address potential discharges.

Were the actions taken at Sunnyside responsible for water that was coming out of Gold King Mine?

The relationship between the water in the Sunnyside Gold Mine and other mines in the area is a complex topic. Many of the mines in the area either intersect the same geologic structures and/or are in close proximity to the same structures. The Colorado Division of Reclamation, Mining & Safety has extensive knowledge and details on Sunnyside and other mines in the area, and that information has been the subject of extensive discussion and review with EPA and the Animas River Stakeholder Group (ARSG) over the last several years.

Hennis said Sunnyside is the source of the contaminated water in Gold King, Mogul, and Red and Bonita. Is that correct?

I cannot confirm this statement.

SEDIMENT AND SLUDGE

If the contaminants do re-mobilize, what are the chances that they will pose enough of a threat to prompt more drinking water advisories or closing of rivers?

It is not uncommon for sediments to move, especially in areas of fast water flow or in times of fast water flow, such as heavy rain events or snow melt. Since the metal concentrations in sediments analyzed after the Gold King Mine release are similar to those before the release, the movement of the sediments during high water flow events would not result in water or sediment concentrations unusual for this area.

Are there any plans to try to remove contamination from sediment? Is that even possible?

There are no plans to decontaminate sediment. That is not currently being considered as an option.

Are we testing Submerged and/or Shoreline sediment?

EPA will likely sample both if necessary.

How likely are the contaminants to re-mobilize? How long will this remain a potential problem?

The areas around the upper reaches of the Animas River have been associated with hard rock mining for a number of years. Some of those mines have been shown to leak water containing heavy metals into rivers and their tributaries throughout this area. Although the movement of contaminated water from the Gold King Mine resulted in a pulse of contaminated water that traveled from the Animas River to the San Juan River and beyond, the pulse of contamination was relatively short-lived and based on sampling tests thus far, is not likely to result in a long-lasting change in water or sediment metal concentrations in these water bodies.

In short, water and sediment sampling indicate that there is no change in the sediment contaminant levels. As such, we don't expect the remobilization of Gold King event-related contaminants to pose health risks.

What should people do if they've dug sediment out of their ponds and ditches? How do they get rid of it properly?

Sediment metals concentrations are below sediment/soil recreational screening levels and are being maintained at pre-event conditions. For property owners who choose to remove sediment and want to know how to dispose of it, samples analyzed thus far have shown that the material is suitable for disposal at a solid waste landfill, such as the Bondad Solid Waste Landfill. Property owners are encouraged to follow the requirements of transporters and the landfill including requirements for containerization and limitations on free liquids.

Is it accurate to say that the EPA's tests show metal concentrations in sediment tested by the EPA have returned to pre-spill levels?

Yes.

Does the EPA have any plans to remove any contaminated soil or sludge from along the Animas River in New Mexico or Colorado? Dr. David Weindorf of Texas Tech University and Russell Begaye of the Navajo Nation have both raised the issue. Does the EPA think the sludge should be removed? Has EPA considered removing it, or requesting that another state or federal agency remove it?

The EPA yesterday announced a long-term monitoring plan to help inform the agency's next steps on the incident. We've asked Navajo Nation -- along with the states of Colorado, New Mexico and Utah; Southern Ute, and Ute Mountain Ute tribes --- for their input, so that we can initiate the work before the fall. All of the affected residents of Colorado, and New Mexico and members of the Southern Ute, Ute Mountain Ute, and Navajo Nation Tribes can be assured that the EPA has and will continue to take responsibility to help ensure that the Gold King Mine release is cleaned up. As background, please see: The draft monitoring plan (attached) we are orgcirculating for review. Yesterday's testimony (attached) by Larry Wolk, from CDPHE, in which he states that Colorado does not anticipate adverse health affects from exposure to river water or sediment during typical recreational activities.

I'm writing a quick story about a recent spate of independent studies that show lingering contamination in the Animas River, even after EPA published data showing that metal

concentrations have returned to pre-spill levels. Wondering if the EPA has any comment on the studies (one from Water Defense, one from Texas Tech, one from New Mexico State University)?

I'm responding to the inquiry you sent to Tom Reynolds on September 25, 2015, regarding independent studies that show lingering contamination in the Animas River. Please find below our response to your request. This response can be attributed to EPA. Please let me know if we can be of additional assistance. EPA has provided an extensive amount of data from the watershed. This data was generated from nationally accredited laboratories providing state-of-the-art confirmatory analyses. The data has been validated by our reviewers, and is made publicly available. The data has been compared to surface water and sediment recreational screening levels generated specifically for the mine release. Sample results have been, and continue to be below these levels. Sample results have also been compared against pre-event conditions. Please note that water discharge from several mines in this area have been flowing into the Animas and San Juan river system for over 100 years, and one would certainly expect to find metals in these discharge waters as well. The metals detected from the August 5th release are no different in content than what would be expected from historical discharges. Results of samples taken over the last several weeks indicate that metal concentrations in the surface waters and sediments have been generally at those pre-event conditions. It should be noted that there may be occasions when the metal concentrations fluctuate from time to time because of water surges due to heavy rains or other events that may change the water flow rates or volume, but this should not diminish the fact that the river system as a whole is being maintained at pre-event conditions. We have released a draft long-term monitoring plan to determine any longer term impacts and are currently working with local and state stakeholders to finalize those efforts.

SUPERFUND

Was the Gold King Mine proposed to be listed on the National Priority List (NPL)?

The Gold King Mine site has never been proposed to be listed on the National Priority List (NPL). At this time we haven't received any requests from the governor to propose listing this site on the NPL, which we look for as part of the agency's policy and practice.

Can the EPA designate a site a Superfund area without support from a community?

The 1986 amendment of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund) contains public participation provisions that direct the EPA to engage communities affected by actual and potential Superfund. NPL sites about cleanup decisions, including the decision to list a site. The Superfund National Priorities List (NPL) identifies the most serious sites that the EPA has designated to be eligible for long-term cleanup. When the EPA proposes to add a site to the National Priorities List (NPL), the Agency publishes a public notice about its intention in the Federal Register. The EPA also issues a public notice through the local media to notify the community, so interested members of the community can comment on the proposal. The EPA must respond to the comments it receives. After consideration of those comments and weighing other factors, the Agency may propose that a site be placed on the NPL.

How long does it take to clean up a Superfund site?

Construction of a Superfund remedy can exceed 10 years, and then operation and maintenance of constructed remedy components, such as water treatment plants, need to continue to treat water well into the future. While this may seem like a long time to complete a cleanup, it is important to remember that the environmental damage to the watershed began over a century ago.

Will EPA be liable for the spill under CERCLA, or how does CERCLA come into play in this scenario?

There are a number of factors courts use to determine liability under CERCLA, many of which depend on site-specific facts and circumstances. At this point, it is too early to speculate about the role of CERCLA's

liability provisions on what happened at the Gold King Mine site. EPA has been using its CERCLA authorities to address the release from the Gold King Mine site, and will continue to use all of its authorities under federal law to fully address this situation.

Has this issue had any impact on the Nelson Tunnel Superfund site above Creed?

We haven't halted or delayed work at Nelson Tunnel due to the cessation of mining activities order.

It is my understanding that the EPA has said a water treatment plant estimated to cost \$12-\$17M (and \$1M a year to operate) would be able to clean the water in the Animas. Is that correct? And if so, is it the type of expense that Superfund would cover?

Costs for constructing water treatment plants at similar large mining sites in Colorado have ranged from \$12M to \$20 M in recent years. Annual operating costs range from slightly less than \$1M to \$1.5M. The studies the EPA and other federal and state agencies have been conducting are designed to determine the scope and feasibility of water treatment in the Animas River Watershed. The agencies have not yet arrived at a final decision regarding the best alternative for conducting water treatment in the watershed.

Funding for water treatment remedies depends on a variety of factors, such as whether there is a viable and liable responsible party to implement the remedy or whether the site is listed on the National Priorities List and is therefore eligible for more extensive federal funding. If the site is listed on the NPL, there is no responsible party, and water treatment is necessary, EPA must seek a commitment from the State to pay a 10% cost share for construction of the plant. The State must also commit to assume full operation and maintenance responsibilities ten years after the construction of a water treatment plant.

Is there a gauge of how often resistance to a Superfund designation by local officials has prevented a site's listing?

No.

Had Gold King Mine been designated a Superfund site, what would have been the chances of the spill happening?

We cannot speculate on whether a Superfund designation would have prevented the incident.

People have stated that EPA intentionally created this release so the Gold Mine could be listed as a Superfund site? Is this true?

In terms of audacity, this ridiculous conspiracy claim ranks next to the moon landing and the President's birth certificate both being fake. At its core, EPA is dedicated to protecting the environment and public health. We've stated from the onset that the August 5 release at the Gold King Mine was an accident and that the agency will take responsibility to ensure it is cleaned up. EPA has also announced that the U.S. Department of the Interior (DOI) will lead an independent assessment of the factors that led to the Gold King Mine incident and it is anticipated that DOI will provide the assessment report to the public within 60 days.

EPA continues to work closely with first responders and local, state and tribal officials to ensure public safety and to provide information to local communities as we work to analyze any effects the spill may have on water resources and public health.

Without Superfund what can the EPA realistically do to clean up such a complex orphaned mine and other like it around the West?

EPA continues to work with our partners and stakeholders to determine the best path forward in addressing mining impacts in the Animas River watershed. Just today, we released our internal review of the incident. The report, along with other documents, is available to the public on our website at www.epa.gov/goldkingmine. We are releasing data and documents in response to a variety of requests and they are all being posted to assure availability to the public.

Clean up of mining sites can be very expensive and take multiple years to accomplish. Superfund has really good public participation provisions that has us engage communities affected by actual and potential Superfund National Priorities List sites about cleanup decisions, including the decision to list a site. NPL identifies the most serious sites that the EPA has designated to be eligible for long-term cleanup.

When the EPA proposes to add a site to the National Priorities List (NPL), the Agency publishes a public notice about its intention in the Federal Register. The EPA also issues a public notice through the local media to notify the community, so interested members of the community can comment on the proposal. The EPA must respond to the comments it receives. After consideration of those comments and weighing other factors, the Agency may proceed with adding a site to the NPL.

The tax on polluters that fed the Superfund Trust Fund expired in 1995, correct?

Correct.

And the balance of that fund, according your numbers, dropped to \$0 in FY 2003, correct?

Correct.

Is NPL listing worth it?

Superfund's National Priorities List (NPL) contains the nation's most serious uncontrolled or abandoned hazardous waste sites. Adding a site to the NPL is the first step in investigation and long-term cleanup of these sites. The list serves as the basis for prioritizing both enforcement actions and long-term EPA Superfund cleanup funding; only sites on the NPL are eligible for such funding. With all NPL sites, EPA first works to identify the parties responsible for the contamination at a site and requires them to conduct or pay for the cleanup. Once public health risks and environmental contamination is reduced or eliminated, previously contaminated properties can be transformed into productive community resources that can enhance property values, create jobs and broaden tax bases.

The Superfund program has provided important benefits for people and the environment since Congress established the program in 1980. Those benefits are both direct and indirect, and include reduced threats to human health and ecological systems in the vicinity of Superfund sites, improvement of the economic conditions and quality of life in communities affected by hazardous waste sites, prevention of future releases of hazardous substances, and advances in science and technology. Recent academic research demonstrated that Superfund cleanups reduce the incidence of birth defects for those living within 2000 meters of a site.

Superfund actions frequently convert contaminated land into productive local resources and increase local property values by eliminating or reducing real and perceived health risks and environmental contamination associated with hazardous waste sites. An academic study found that residential property values increased 18.6-24.5 percent when sites were cleaned up and deleted from the NPL.

How much has funding for projects decreased since the polluters tax went away?

Congress appropriates funding for the Superfund program, and sources for these appropriations have drawn on a mixture of funds from general revenues and the Trust Fund. Superfund appropriation-levels have remained relatively constant in nominal terms since the Superfund tax expired (but have not been adjusted for inflation). See chart below for EPA's Hazardous Substance Superfund enacted appropriations from 2006 through 2015.

Fiscal Year	Hazardous Substance Superfund Enacted Appropriation in Millions
2006	\$1,235.0

2007	\$1,255.0
2008	\$1,254.0
2009*	\$600.0
2009	\$1,285.0
2010	\$1,307.0
2011	\$1,280.9
2012	\$1,213.8
2013	\$1,113.3
2014	\$1,088.8
2015	\$1,088.8

*Represents the American Recovery and Reinvestment Act of 2009 resources

How long does it take for funding to be available once a project is added to the NPL?

Final addition of a site to the NPL begins the process of investigation, study and design that can take several years. Only when a remedy for long-term cleanup is finally decided does a site become eligible for long-term clean-up funding. In addition, EPA searches for responsible parties. Therefore, it can be several years after a site is placed on the NPL before funds for remediation (i.e., long-term cleanup—as opposed to investigation, study and design) activities become available for a given project. Also, additional factors affect when EPA funds a project, including other projects' funding needs, available funds and site-specific conditions (e.g., size, contaminant types, geology, hydrology, overall site geography, site accessibility). It's important to note that EPA monitors sites for any changes in status, and, in the event EPA identifies an emergency situation at any Superfund site, we can use our removal authority to address any imminent threat to human health or the environment.

What are some Superfund success stories, particularly any involving tourism-heavy regions?

A good example of a Superfund success story at a mining site in a tourism-heavy area is the California Gulch site located in Lake County, Colorado. Mining operations from the 1800s left mining byproducts on site that contaminated soils and waterways, including the Arkansas River. Since it was added the site to the NPL in 1983, EPA has removed much of the site from the list as cleanup actions have been completed. Residents have continued living and working safely in Leadville during the site cleanup process.

Over the years, EPA worked with the State, the local community and the site's potentially responsible parties to coordinate ecological restoration work and redevelopment on specific portions of the site. In 1998, EPA and the State signed agreements to provide public access to open space near the Arkansas River. State and local governments purchased more than 2,300 acres of ranch land that serve as wildlife habitat and recreational resources.

There are several aspects to the recreational resources that have been part of the site's redevelopment activities. One aspect involves construction of a \$1.5 million public sports complex, including a soccer field built in 2009 on a portion of the site where a former zinc smelter operated. One of EPA's national partners, the United States Soccer Foundation, awarded a \$10,000 grant to develop initial plans for the facility. Community support also led to the creation of a 21,000-square-foot concrete skate park that opened in fall 2013. This was one component of a community-driven initiative called the Huck Finn Park Project. The project will upgrade an existing Leadville park with new skating facilities, repaired tennis courts, and a new building for park equipment storage, restrooms and concessions. The community also incorporated reuse of remaining site byproducts into the design of the Mineral Belt Trail, which opened in 2000. This nationally recognized recreational trail highlights the community's history and heritage. In 2014, the Colorado Parks and Wildlife Commission honored the site with a Gold Medal Trout Waters designation. The designation highlights the Upper Arkansas River's improved water quality and revitalized habitats for trout and other wildlife.

See http://www.epa.gov/superfund/programs/recycle/live/region8_co.html#1 for more information about

this site cleanup.

How much more money could be expected with a Superfund designation and placement on the NPL?

A given site's funding level depends upon a number of factors, including site-specific conditions (e.g., size, contaminant types, geology, hydrology, overall site geography, accessibility); other projects' funding needs; and available long-term cleanup funds. An estimate of a given site's remedial funding needs do not become available until EPA selects a site's remedy(ies). That estimate becomes further refined as a remedy is designed and implemented.

How long would that process take and how high on the NPL list would Silverton be given it is not an immediate hazardous health concern (although downstream towns might argue that point)?

Listing on the NPL is a multi-step process. After initial investigation and sampling has determined that the site warrants further evaluation and potential remediation, the data gathered is used to assign a Hazard Ranking System (HRS) score. Sites with an HRS score of 28.50 or greater are eligible for placement on the NPL. The time it takes to propose a site to the NPL varies depending on many factors, for example, the complexity of the site, the extent of stakeholder interest, the support from the state, and the availability of other cleanup options. Sites are first proposed for addition to the NPL in the Federal Register. EPA then accepts public comments for 60 days, responds to the comments, and places those sites on the NPL that continue to meet the requirements for listing. EPA carries out this process as a rulemaking published in the *Federal Register*. EPA generally follows a schedule of issuing two rulemakings per year, one set of proposed/final rulemakings in the spring and one in the fall. For most sites, the time between proposal and final listing is six months.

The HRS, a mathematical model, is the principal mechanism EPA uses to evaluate a site for potential placement on the NPL. It should be emphasized that the HRS score does not represent a specific level of risk at a site. Rather, the score serves as a screening-level indicator of the relative risk among sites reflecting the hazardous substance releases or potential releases at sites. As a matter of policy, EPA does not score additional pathways if the listing decision would not be affected by such action (i.e., the site already scores 28.50 or greater). EPA must balance the need to fully characterize a site and to perform the analysis with the limited resources available to collect and analyze site data. For these reasons, the HRS score cannot be used to determine its "position" on the NPL.

This GAO report paints a fairly bleak funding picture for NPL remediation - <http://www.gao.gov/new.items/d10380.pdf>

How many NPL sites were cleaned up during peak funding era in the 1990s when Polluter's Pay Superfund Tax was in place? How many sites are cleaned up in more recent years when the EPA has had to rely on general funds from Congress?

At the EPA website, [Number of NPL Site Actions and Milestones by Fiscal Year \(1988-2015\)](#), EPA has posted Superfund site action data from fiscal year (FY) 1988 to FY 2015 (which ends on September 30, 2015). These actions include the number of sites reaching the "construction completion" milestone, which EPA developed in 1988 to better communicate the successful completion of cleanup activities. Sites achieve this milestone when:

- any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved; or
- EPA has determined that the response action should be limited to measures that do not involve construction; or
- the site qualifies for Deletion from the NPL.

Today, approximately 68 percent of the sites on the NPL are construction complete. Many of the sites listed in the program's first decade have reached this milestone. Funding and enforcement efforts do play

an important role in the ability to address sites. However, many of the remaining sites are often large, complex, technically challenging, and more difficult to remediate. Contamination at these sites is the result of activities and operations that occurred over decades. They include area-wide groundwater sites, mining sites, sediment sites and federal facility sites. These sites can span hundreds of square miles, have complex geology and extensive groundwater contamination, involve hundreds of contaminants and impact thousands of residential properties. As a result, the pool of candidate construction sites has become much smaller in recent years, thus having a significant impact on the number of sites reaching construction completion in a given fiscal year. In part, this shrinking pool is because many of the sites listed in the program's first decade have reached construction completion. Also, as the number of site listings declined in the 1990s, so did the pool of construction completion candidates.

Where does the current EPA stand on the Superfund tax issue, which Oregon Rep. Earl Blumenaur has filed a bill to reinstate?

One of EPA's top priorities for funding Superfund Cleanup is to get those responsible for the contamination—known as the Potentially Responsible Party or PRP—to clean up the site. If the PRP cannot be found or cannot perform or pay for the cleanup work, the Federal Government funds the cleanup.

Under the Superfund law, EPA is able to make those who are responsible for the contamination perform and pay for the cleanup. EPA negotiates to get them to pay for the plans and the work carried out under Agency supervision. EPA also may use Federal Government funds to pay cleanup costs, then attempt to recover the money through legal action.

The Administration has supported reinstating the lapsed Superfund taxes. Since the expiration of Superfund taxes, Superfund program funding (the "Superfund appropriation") has been largely financed from General Revenue transfers to the Superfund Trust Fund, thus burdening the individual taxpayer with the costs of cleaning up hazardous waste sites. In order to provide a stable, dedicated source of revenue for the Superfund Trust Fund and to restore the historic nexus that parties who benefit from the manufacture or sale of substances that commonly contaminate hazardous waste sites should bear the cost of cleanup when viable potentially responsible parties cannot be identified, the Administration supports reinstating Superfund taxes.

EPA uses the Superfund appropriation to address sites where there are no viable, liable parties. The proposed taxes would apply to a more narrowly defined taxable group rather than the general taxpayer, which is consistent with other Trust Funds such as the Leaking Underground Storage Tank Trust Fund. Based upon past appropriations practices, we would expect appropriated levels of general revenue to decline as Superfund Trust Fund tax revenues are generated to fund Superfund program appropriations.

Additional info you may find useful, from Mathy Stanislaus's testimony today before the House Science and Technology Committee: To help address the legacy of hardrock mining across the country, the Administration has proposed in the FY 2016 and prior budgets to create an Abandoned Mines Lands (AML) Program for hardrock mines. The program would be funded through a new AML fee which would hold the hardrock mining industry responsible for the remediation of abandoned hardrock mines, just as the coal mining industry pays to reclaim abandoned coal mines.

Could you please send me the studies Mr. Stanislaus cited about property values going up once Superfund sites are finished?

The academic study *Does cleanup of hazardous waste sites raise housing values? Evidence of spatially localized benefits* by Shanti Gamper-Rabindran and Christopher Timmins identifies that residential property values within three miles of Superfund sites increased 18.6-24.5 percent when sites were cleaned up and deleted from the National Priorities List.

Was it a tax or taxes on polluters that funded the Superfund Trust Fund?

Plural - Superfund taxes lapsed. They consisted of a corporate environmental tax and an excise tax on imported and domestically produced petroleum and an excise tax on certain chemical feedstocks.

Is it accurate to say that the drop off in annual number of ‘construction completions’ is due (or due in part) to the lack of a dedicated revenue stream?

The drop in annual construction completions is generally unrelated to the lapse in Superfund taxes, the Superfund program has always relied upon annual congressional appropriations to fund the program.

Also, is there any new consideration of placing any other area/mine near the Gold King Mine on the NPL?

EPA’s Region 8 Administrator and the Office of Solid Waste and Emergency Response Assistant Administrator met with representatives from Silverton, Durango, La Plata County, San Juan County, Southern Ute Tribe, and other stakeholders on September 2 and 3, 2015, to discuss the National Priorities List (NPL) process and possible next steps. Following this meeting, EPA continues to engage in dialogue with all pertinent stakeholders.

THIRD PARTY INVESTIGATION

When will we know more about what really happened and who is to blame for the breach?

EPA and external entities will be thoroughly investigating the full facts regarding this incident and the response, and the agency will respond based on that information. The U.S. Department of the Interior (DOI) is leading an independent assessment of the factors that led to the Gold King Mine incident on August 5, 2015, in Colorado that affected the Animas and San Juan rivers. More information is available at: <http://www2.epa.gov/goldkingmine/epa-announces-us-department-interior-lead-independent-review-gold-king-mine-release>.

Administrator McCarthy said that EPA is “standing down” on cleanups at sites similar to Gold King. Is this still in effect and how many sites does that affect?

Until investigations are complete as to the root causes of the release of mining waste at the Gold King Mine, all EPA regional offices will cease any field investigation work at mines, including tailings facilities. While EPA stops work on existing field investigations and assessments at these mining sites, EPA is also instructing its regional offices to identify existing sites with similarities to the Gold King Mine site, to identify any potential immediate threats and to consider appropriate response actions.

UPPER ANIMAS RIVER BASIN PROJECT PROPOSAL

Has the EPA seen and reviewed the proposal? Is the EPA considering any or all of the proposal for remediation in the Upper Animas River Basin? Does the proposal have merit? Does it have significant drawbacks?

EPA is reviewing the September 11, 2015, proposal, “Upper Animas River Basin Acid Mine Water Remediation: The Project Proposal” along with ideas and proposals received from various parties with an interest in solutions for the watershed. EPA has made no determinations regarding long-term cleanup needs and actions. We continue to work closely with the State of Colorado, tribes, and local stakeholders to evaluate information and options for improving water quality in the basin.

Could the proposal be eligible for funding through the Superfund program?

EPA is reviewing the September 11, 2015, proposal, “Upper Animas River Basin Acid Mine Water Remediation: The Project Proposal.” We are also reviewing other ideas and proposals received from various parties with an interest in solutions for the watershed. We continue to work closely with the State of Colorado, tribes, and local stakeholders to evaluate information and options for improving water quality in the basin. EPA has made no determinations regarding long-term cleanup needs and actions, so it is premature to discuss what actions might be taken and how such actions would be funded.

Could it be eligible for other types of funding through the EPA?

EPA is reviewing the September 11, 2015, proposal along with ideas and proposals received from various parties with an interest in long-term solutions for the watershed. EPA has made no determinations regarding specific cleanup needs and actions in the watershed. It is premature to speculate about potential cleanup actions and EPA funding; however, EPA's authorities and resources beyond those associated with Superfund are limited in terms of being able to address mine impacts of the scope and complexity found in the Upper Animas Mining District.

WASTEWATER TREATMENT PLANT AND LONG-TERM MONITORING

How many mining districts/big mines could benefit from a wastewater treatment plant similar to the one proposed north of Silverton?

Melissa Harrison asked me to look into your question about how many mining districts/big mines could benefit from a wastewater treatment plant like the one being considered for north of Silverton. This is not something we track. EPA's principal involvement is at NPL sites (133 of which are mine-related). This is a very, very, small fraction of the hundreds of thousands of inactive and abandoned mines sites in the U.S. Perhaps the United States Geological Service (USGS) has some data on how abandoned and inactive mining sites impact U.S. water. Thanks, and please let me know if we can help with anything else.

It's my understanding EPA has received six bids for a water treatment plant for Gold King. Can you discuss this more?

The issuance of a work order doesn't mean that there has been a final decision to build a wastewater treatment plant. Agency staff initiated the RFP process immediately after the spill, so that the procurement process would be well underway if that decision were to be made. (It can take several weeks to specify, solicit proposals, conduct technical evaluations, and then mobilize and deploy.) We have continued to proceed with the necessary steps to procure a system. Our contractor has solicited proposals and is evaluating 6 company proposals. This evaluation is in process. At the same time, the agency is conducting an analysis to determine if a temporary treatment plant provides a measurable benefit to water quality downstream in the Animas River. The agency is closely coordinating with officials in Colorado, New Mexico, Utah, Southern Ute tribe, Mountain Ute tribe, and Navajo Nation to develop a comprehensive, long-term plan for the Gold King Mine site.

BACKGROUND You can read the RFP here: <http://www2.epa.gov/sites/production/files/2015-09/documents/08-1574715.pdf> In particular, you'll want to see: Page 6, 3.0, "Project Technical Requirements": "EPA has directed ER to procure an interim water treatment plant for the treatment of mine discharge for an emergency response action at the Gold King Mine Site in Colorado. ..." Page 26, 11.0 Award of Subcontract: Bidders should note this is an EPA time-critical removal project and that bidder's inability to provide an aggressive, but realistic, schedule and demonstrated ability to provide all required resources on schedule, will be considered during the evaluation process. Be advised this RFP does not guarantee the work will be performed, and makes no guarantee on quantities. The actual quantities may be greater than or less than the quantity specified in the Scope of Work.

In an Aug. 6 task order to Environmental Restoration LLC the EPA said it wanted a temporary wastewater treatment plant at Gladstone by Sept. 15. That, to my understanding, has not happened. Can you discuss why not?

The task order was placed to prepare EPA for treating water, recognizing we would need some lead time if we were going to have a treatment plant in place before winter. A decision on treating through the winter and the practical aspects and benefits were not available at the time this task order was issued.

The Environmental LLC request for a wastewater treatment plant bid from Aug. 21 says bids were due by Aug. 26. Have those bids come in yet? Were there any bids?

We have received bids from 6 companies and are in the process of evaluating those bids. We are not at liberty to discuss any proposals during the competitive procurement process.

The EPA earlier said it definitively planned to build a treatment plant and then last we spoke you said the agency is looking at several treatment options. Why the delay here? What changed?

EPA is evaluating data to determine the impacts of the GKM on water quality currently and going into the winter months. GKM is one of many mines contributing to poor water quality in the Animas and treating or not treating water only from the GKM may or may not have a measurable impact downstream going forward.

Is there a proposal for a mine wastewater treatment plant near or on Cement Creek near Silverton that the EPA is considering building/might build or fund construction? I understand that at NPL sites, the EPA/federal government contributes 90 percent of the funds for construction and operating costs for 10 years before the wastewater treatment plant is turned over to local governments. There is a good example of this process near Denver at the Argo Tunnel Wastewater Treatment Plant in Idaho Springs, which is now state operated. Another mine wastewater treatment plant is planned not far from where the 1859 gold rush began. These mine wastewater treatment plants, based on the history of the Argo Tunnel plant aren't hastily built. There is a long process, often with local community opposition before construction even begins. Speaking with folks down in Silverton, there has been a proposal/discussion to build a wastewater treatment plant, possibly with EPA funding, near or on Cement Creek near Silverton for some years.

Within days of the Aug. 5 event, EPA staff initiated the process to gather bids on constructing a temporary wastewater treatment plant to address the ongoing flow from Gold King Mine. We have received 6 bids and are currently considering them, as well as analyzing whether such a plant is warranted.

Are there other places near or at big mines/mining districts where this type of discussion, to build a mine wastewater treatment plant, is currently under way?

Yes, water treatment facilities have been built at a number of hardrock mining sites on the NPL. Here are some examples that should give you a sense of the different types of facilities that exist. Some examples of the response actions that address mine waste influenced waters at hardrock mining sites include the Central City/Clear Creek Mine site in Colorado where surface water was diverted and the acid mine drainage is being treated through an active treatment system which uses lime to raise the pH and the resulting metals sludge is being properly disposed. Part of the drainage at the Central City site is also being treated through a bioreactor, or passive treatment process. At the Iron Mountain site in California, surface water is also being diverted and the acidic waters are also being treated through a chemical neutralization process. The sludge generated from the treatment process is being disposed in a repository. Sites such as the Gilt Edge Mine in South Dakota and Kennecott site in Utah are using passive bioremediation technologies to treat mine waste influenced waters at those sites.

Are there other places near or at big mines/mining districts where the EPA has considered building a mine wastewater treatment plant but has tabled that discussion, planning because of costs, local opposition or other reasons? Are there mine wastewater treatment plants that the EPA is involved with that are currently out for bid or are under construction?

After reaching out to our regions, we have not identified instances where we considered building a mine wastewater treatment plant but that plans were tabled because of costs or local opposition. Nor have we identified instances where we have mine wastewater treatment plant construction out for bids etc. If we receive further information from our regions regarding these questions, we will let you know.

How did you guys come to the decision to allow ER, LLC to handle the bidding process for the treatment plant? Readers have been asking us about this. They point out that ER was working on the mine when the problem occurred. So, why allow them to handle the contract for the treatment plant if they were part of the error in the first place? Why hasn't the EPA terminated its contract with ER following the error? And why allow them to continue the work moving forward?

Please find below our response to your inquiry on the Gold King Mine contractor Environmental Restoration. This response can be attributed to EPA. Please let me know if we can be of additional assistance. Environmental Restoration is a primary emergency response contractor for EPA in Colorado and elsewhere. This standing contract allows us to immediately respond to emergencies and time critical response actions. The contractor operates under the direct supervision of EPA employees on a cost reimbursable basis. They do not make independent decisions on site operation. ER has done work for many years for the agency. We are waiting on the results of the independent review and the inspector general's report to determine if any actions with respect to the contract are appropriate.

Exactly where is the treatment plant going to be installed?

The plant will be installed at the Gladstone, CO command post area, about 10 miles north of Silverton, CO and the junction of Country Rtes 110 and 35.

How will the plant treat the toxic wastewater? (i.e. what is the exact process by which the toxic material will be removed from the water?) How effective will the plant be/what are the expectations?

Here is basic technical information provided by the sub-contractor, based on their experience they are confident that the plant design will achieve:

- Discharging treated water from the system will have a neutral pH in the range of between 6.0 and 9.0 pH units. (pH, or the acidity of a fluid ranges from 0.0 for acid to 14.0 for caustic fluids and neutral is 7.0)
- Dissolved solids will be reduced by removal of metals and formation of metal hydroxide sludge.
- Total solids will be reduced by coagulation, flocculation, and settling through the clarifier.
- Color is currently caused primarily by iron oxidation, and staining is caused both by iron and manganese in the mine water forming precipitates on rocks and in sediments. The treatment process will remove both iron and manganese by more than 90%, reducing the potential for color.
- For metals of concern, the treatment process typically removes metals between 95% and 99%.

After treatment, will the water be of high enough quality for drinking?

This plant is not designed to output drinking quality water; see EPA's September 23, 2015 press release for more detail on intent and purpose: [Attached press release]

Is this really going to make any difference given how much toxic wastewater has already been released into the environment?

The above answers address the contaminant removal of this system. The mines in the area have been releasing contaminated mine wastewater into the environment for decades and is a complicated problem. Dealing with this legacy of the mining industry is why EPA was originally called upon.

Can you tell me whether the interim water treatment plant for the Gold King discharge is operating yet [asked 10/16]?

Please attribute to an EPA spokeswoman: The system is now operating 24 hours a day. It is treating flows from 200 to 800 gpm, which includes all the flow from the mine, plus water that has been stored in ponds prior to start-up. Modifying the flow range has allowed plant engineers to adjust the instrumentation to a range of influent flow rates. Start-up adjustments and equipment testing will likely continue for another week. Based on field testing, treatment effectiveness appears to be very good so far. I've got some photos but they're pretty low-res. I've asked the command post if they have high-res versions for you.

I'm looking towards the future of the area. There's a lot of interest in how Silverton will react

moving forward and how to deal with the problem of mitigation and clean up in the Upper Animas. Any thoughts on that?

It is our understanding that CDPHE is convening a conversation on long-term mitigation strategies, which might include NPL listing. I suggest contacting Monica Desch Sheets, 303-692-3439, Monica.Sheets@state.co.us or Doug Jamison, 303-692-3404, Doug.Jamison@state.co.us for more information. For additional background on the role of EPA: The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund) contains public participation provisions that direct the EPA to engage communities affected by actual and potential Superfund. Last month, at the request of the local communities, EPA's Region 8 Administrator and the Office of Solid Waste and Emergency Response Assistant Administrator met with representatives from Silverton, Durango, La Plata County, San Juan County, Southern Ute Tribe, and other stakeholders on, to discuss the National Priorities List (NPL) process and possible next steps. Following this meeting, EPA continues to engage in dialogue with all pertinent stakeholders. At this time we haven't received any requests from the governor to propose listing this site on the NPL, which we look for as part of the agency's policy and practice.

Without a plume model, it seems that the sampling plan lacks pertinent information. Specifically, how does the sampling plan provide statistically meaningful information on the plume itself? The aerial photographs do not provide any information about what is happening on the bottom of the river, or the flora and soil on the riverbanks or its tributaries. The plan mentions Region 8, but not Region 6 or 9. It seems to omit Colorado altogether. Are there separate plans for each region? 2) The interim plan seems to lack any input from veterinarians, medical toxicologists or agricultural toxicologists. How will EPA assess potential health impacts to humans, wildlife, livestock and crops? 3) Also, we had requested information about the concentrations in the containment ponds. We viewed three ponds where lime is being added, which we understand results in heavy metals forming hydroxates that fall to the bottom. How will that waste be dealt with? Will it be tested for safety, and where will it end up? How will the EPA determine when the ponds will be opened and released downstream? Is there a plan to monitor those discharges?

I'm following up on your question about where the waste will go from the Gold King Mine treatment plant. The concentrations of metals in the solids in the pond will inform where the material is ultimately disposed of. Our options are to dispose of the material in a Superfund repository, or to dispose of the material in a solid waste landfill.

What are the baselines for determining whether it goes to the repository or the landfill? I'm asking for the specific criteria EPA uses to make the decision. Is there a table or any type of listing I can look at?

Please attribute to an agency spokeswoman: The settling ponds and associated solids may be reclaimed in place in compliance with the substantive provisions of the DRMS regulations. Alternatively, the solids may be excavated and disposed in an on-site repository constructed in compliance with the substantive provisions of federal and state solid waste regulations. Solids generated by the water treatment operation will be handled in the same manner. For the off-site option, all solids would need to be characterized and then based on that characterization, would be transported and disposed at an appropriate disposal facility.

When was construction of the system completed?

Water started flowing on Oct. 16. The system is now operating 24 hours a day. It is treating flows from 200 to 800 gpm, which includes all the flow from the mine, plus water that has been stored in ponds prior to start-up. Modifying the flow range has allowed plant engineers to adjust the instrumentation to a range of influent flow rates. Start-up adjustments and equipment testing took about a week. Based on field testing, treatment effectiveness appears to be very good so far.

What does the treatment system consist of (i.e., what are its different components/steps)?

Here is basic technical information provided by the sub-contractor:

- Discharging treated water from the system will have a neutral pH in the range of between 6.0 and 9.0 pH units. (pH, or the acidity of a fluid ranges from 0.0 for acid to 14.0 for caustic fluids and neutral is 7.0)
- Dissolved solids will be reduced by removal of metals and formation of metal hydroxide sludge.
- Total solids will be reduced by coagulation, flocculation, and settling through the clarifier.
- Color is currently caused primarily by iron oxidation, and staining is caused both by iron and manganese in the mine water forming precipitates on rocks and in sediments. The treatment process will remove both iron and manganese by more than 90%, reducing the potential for color.

Further details, including schematics, can be found in the subcontractor's proposal:

<http://www2.epa.gov/sites/production/files/2015-10/documents/alexco-proposal-gold-king-mine-redacted.pdf>

How much did it cost to construct?

The subcontract for treatment includes \$1.78 million for mobilization and system install and \$20,000/week for operations. Other costs include demobilization and bonding totaling \$53,200.

How long will it remain in operation?

The subcontract provides for 42 weeks of treatment. EPA will have the option with the contractor to start or stop treatment as needed.

What else is planned to address the site over the long term?

EPA's immediate focus has been on getting the temporary treatment system constructed and operating at the Gold King Mine. We are actively engaged in discussions with the Colorado Department of Public Health and Environment, Bureau of Land Management, tribes and local stakeholders regarding next steps toward long-term solutions.

What support has EPA provided Navajo Nation?

We have a long-term relationship with the Navajo Nation and the agency is committed to working collaboratively with the Tribe on response activities related to the Gold King Mine release.

EPA and the Bureau of Indian Affairs (with EPA funding) provided over 1 million gallons of livestock and agricultural water, and nearly 8,500 bales of hay, to Navajo communities along the San Juan River. The agency deployed staff to the Navajo Nation Emergency Operations Center (EOC) in Window Rock, Arizona, and sent community involvement staff to engage with Navajo communities impacted by the spill. The agency continues to offer the Navajo Nation support regarding data collection and analysis and long-term watershed monitoring.

Additionally:

- In the immediate aftermath of the release, EPA established an Area Command Post in Durango, Colorado. EPA Region 9 and EPA Region 6 also established Incident Command Posts (ICP) in Farmington, New Mexico.
- Throughout the response, EPA worked closely with the Navajo Nation Emergency Operations Center (EOC) in Window Rock, Arizona.
- EPA deployed a full-time liaison to the Window Rock EOC from August 13 through September 18.
- EPA provided an On-Scene-Coordinator and Coast Guard personnel from September 21 through October 2 to support the operations of the Navajo Nation EOC.
- EPA Region 9's Farmington ICP coordinated sampling activities on the San Juan River and Lake Powell, and delivery of hay as well as livestock and agricultural water to Navajo Nation.
- The Farmington ICP had a Community Involvement Unit composed of two to four community involvement staff who engaged with Navajo communities affected by the Gold King Mine release.
- Community involvement staff attended meetings at the invitation of Chapter presidents and local officials, and shared critical information about emergency water and hay provisions and response activities with residents, reaching an estimated 1,100 community members at nine public meetings over ten days.

Question 1: What are the latest gpm flows from Gold King, Mogul, R &B, and Sunnyside/AT?

Flow from the WTP averaged 530 gpm from 10/23/2015 to 12/11/2015 as measured at the water treatment system.

1. The Post-Release Average Flow:

Mogul	66 gpm
R&B	474 gpm
GKM	530 gpm
AT	100 gpm

Question 2: What is water quality in Cement Creek below the treatment plant where R and B, Mogul and Sunnyside/AT flows continue?

Animas River immediately below Silverton: The water quality based on total and dissolved metals data is effectively equivalent to or improved for all metals of concern when comparing post Interim Water Treatment System operation (Oct 2015) to EPA data sets from 2009 through 2014.

Cement Creek: Samples collected in Cement Creek below the discharge point from the Interim Water Treatment System as compared to historic sampling in approximately the same area near Gladstone also shows that all metals of concern are equivalent to or less than historic concentrations.

We understand that you're looking for specific data on post-WTP water quality data. The latest water quality data available is posted on our website. As new data becomes available, we will analyze and validate it and then post it on the website for public review.

Question 3: What is the latest WQ data at the location where the creek reaches Silverton?

Answer 3: OTR, I haven't tracked this down yet but want to get you the other answers asap.

Question 4: How much Superfund money is controlled by Region 8? How far would that go on Animas situation?

The Region 8 annual removal budget is approximately \$5,000,000 for cleanup projects and emergency removals plus an additional \$2,000,000 for removal assessment work. The region completes on average

22 removal actions a year. The region also has an annual budget of more than \$9 million to fund Superfund functional support activities such as site characterization, remedy selection and design, community involvement and non-National Priorities List site assessment work. Headquarters determines, on a site-specific basis, funding levels for remedial (i.e., long-term) construction projects.

Question 5: We understand EPA now paying \$16,000 a week to run temporary treatment plant. Correct? Is this Superfund emergency response funds?

The weekly cost was estimated at \$16,000 for the subcontractor to perform operation and maintenance including chemical costs. Yes, these are Superfund emergency response funds.

Question 6: Is EPA saying in general there will be funding available for Silverton/San Juan and Animas or have officials been able to refer to a specific amount available in Region 8 for remediation work here?

The Gold King Mine site is and will remain a priority for the agency. If EPA adds a site to the NPL, that action begins the process of investigation, study, and design. When a remedy for long-term cleanup is selected, a site cleanup project becomes eligible for long-term remedial funding. However, if site conditions change, EPA can use our removal authority to address an imminent threat to human health and the environment.

Question 7: Can you address on the record whether Hennis is considered a PRP? Or is Kinross (Sunnyside) the only PRP?

EPA has been in discussions and expects to continue discussions with Mr. Hennis and his counsel regarding access and Mr. Hennis' status at the site.

Question 8: When locals (I am in Silverton for public meeting which now has been canceled) say EPA is the RP that should pay for permanent water treatment plant, what is EPA conveying about extent to which Feds would handle share of costs of long term water treatment on upper cement creek?

It is premature to discuss long-term water treatment on Upper Cement Creek, so we cannot speculate about funding.

Question 9: I understand both the state and the EPA have conducted myriad studies on the upper animas for decades and I am wondering whether a Superfund designation necessarily would mean going back to the starting gate --- with a remediation study investigation and then a feasibility study investigation --- before anything actually happened?

We generally don't have this much data associated with a potential NPL site. Whenever possible, EPA uses existing information and builds upon it as necessary to identify specific cleanup needs and actions. But EPA is still working with state, local and tribal stakeholders as we deliberate whether to list the site on the NPL, so it is premature to speculate on next steps.

Does BLM own any part of the GKM? Who are the PRPs?

The ownership information that EPA has had for several years indicates that San Juan Corp owns the Gold King mine portal. Recent San Juan County Surveyor work verified this information. The surveyor work also determined that a portion of the mine dump – in other words, the pile of waste rock in front of the mine entrance – lies on BLM land.

The agency's investigation is ongoing, so it is premature to speculate on PRPs or liability at this time.

1. Why was there no criminal investigation regarding the Gold King Mine spill, especially regarding neglect? Can the public expect one in the near future?

As we have said previously, the Department of Interior (DOI) and EPA Office of Inspector General (OIG) investigations will help inform how we move forward. We have received the DOI report and are currently awaiting the report on the OIG investigation.

2. Some have accused the EPA's policies as hypocritical for declining to conduct a criminal investigation into the Gold King Mine spill (for example: <http://www.heritage.org/research/reports/2015/12/agencies-not-coming-clean-about-the-epas-responsibility-for-poisoning-the-animas-river>). Would a private entity have been criminally investigated were it responsible for the Gold King Mine Spill, and if so, why isn't the EPA or Environmental Restoration LLC being criminally investigated?

See answer to Question #1 above.

3. I previously asked about nondisclosure agreements used in EPA contracts and was told:

“The statement of work includes a standard requirement that the contractor shall not publish or otherwise release, distribute, or disclose any work product generated under the contract without obtaining EPA’s express advance written approval. This does not require either an NDA or confidentiality agreement be signed by individual employees.”

Jonathan Romeo, Durango Herald

Spring Run-off:

Question 1: Is the water treatment facility capable of handling a possible increase in Gold King mine discharges as a result of spring run off?

Response 1: The treatment system is designed to process a continuous flow up to approximately 900 gpm with shorter periods up to 1200 gpm. The current flow from the mine is approximately 480 gpm. The potential flow increases associated with snow melt are difficult to predict.

Question 2: Will the EPA monitor the water as sediment is kicked up, possibly raising metal concentrations in the river to unsafe levels?

Response 2: Yes, EPA plans to monitor before, during, and after spring run-off to capture water quality conditions during those flow events. Seasonal run-off and storm events routinely increase the sediment load, as observed historically.

Going into Gold King:

Question 3: Does the EPA intend to explore the GKM to find possible sources of increased flows? When will this decision be made?

Response 3: The scope and priorities for the 2016, field operations at the mine will be determined over the next several months.

Question 4: What are the benefits of entering the mine?

Response 4: The potential benefits of investigating further underground include the possibility to identify locations that may be suitable for bulkhead installation or other controls associated with controlling the water entering the mine.

Contract with Todd Hennis:

Question 5: With Mr. Hennis's contract set to expire in March, what is the EPA's plan to continue operations at the water treatment facility?

Response 5: Mr. Hennis' Consent for Access to EPA expires at the end of March. EPA intends to discuss extension of the access agreement in the near future.

Question 6: Is a long term solution being made?

Response 6: Discussions regarding long-term solutions to mining-related impacts on water quality in the Animas River between CDPHE, EPA, San Juan County, Silverton, and other stakeholders are ongoing. EPA and CDPHE have been working diligently with stakeholders to answer their questions about a potential listing on the National Priorities List. Progress has been made and those discussions continue.

Bulk-heading Red and Bonita:

Question 7: When will the decision be made to bulkhead Red and Bonita?

Response 7: Plans for closing the bulkhead valve and incrementally increasing the water level behind the bulkhead are being developed and include various monitoring procedures.

Question 8: Please go into length why the decision to bulkhead was made, and what are the hopeful outcomes.

Response 8: An engineered reinforced concrete plug (bulkhead) installed in an "abandoned" i.e., non-working mine, offers four distinct advantages to protecting the environment. First, it prevents future uncontrolled releases from the mine. Second, with a flow through pipe and valve built into the plug the water can be managed and monitored. Third, with the capability of managing the water, the water can potentially be backed up into the mine workings and the hydrogeology (water table) re-established to near pre-mining conditions reducing the amount of oxygen available to the mineralized rock in the workings reducing acid generation and leaching of metals. Fourth, the backed up water is likely to move into old and new outlets in the form of springs and seeps that represent normal rates of drainage from the mountain fracture systems. The objective is to reduce the rate at which water can move through underground mine workings. The ultimate decision as to how best to manage water behind a bulkhead is based on the hydrogeology and mine workings associated with a particular site.

Reimbursements:

Question 9: Has any individual been reimbursed for costs associated with GKM? (If not, when can residents expect that to happen?)

Response 9: As of February 1, 2016, the Agency has received 45 GKM FTCA claims. To date, FTCA claims have not been paid.

Question 10: Please include a list of total checks written to municipalities (I believe Silverton and La Plata have received funds from EPA, any others?)

Response 10: CDPHE has paid both La Plata and San Juan counties from funds in an EPA/CDPHE Cooperative Agreement. 197,792.20 was paid by CDPHE to La Plata County and \$220,666.91 was paid by CDPHE to San Juan County.

Water Treatment Plant:

Question 11: How long is the temporary plant capable of operating?

Response 11: The temporary water treatment system was intended to allow water treatment, as determined appropriate by EPA, to provide some degree of control of the metals releases given uncertainties associated changing flows from the Gold King mine and the variable surface water quality conditions.

Question 12: If Silverton misses March review, does the EPA intend on operating the plant through the summer? And into next fall? (assuming the town tries for the Sept. consideration)

Response 12: The Agency is still deliberating on this issue.

However, requiring "work product" to remain undisclosed is different from a "nondisclosure agreement." That being the case, why has Environmental Restoration refused to discuss the Gold King Mine spill with the public, citing a nondisclosure agreement with the EPA?

We would suggest you contact Environmental Restoration directly. As you know, Dennis Greaney, the President and Managing Partner of Environmental Restoration, testified at a Congressional Hearing regarding the Gold King Mine matter on September 9, 2015.

Following up on question three, is Environmental Restoration using the same argument when facing inquiries from investigators with the Bureau of Reclamation's report, the inspector general, and Congress?

See answer Question #3 above. Also, you may want to contact Dan DuBray, the Chief of Public Affairs at the Bureau of Reclamation at 202-513-0574 (ddubray@usbr.gov) and Jeffrey Lagda, the communications contact at the EPA OIG at 202-566-2584 (lagda.jeffrey@epa.gov).

Environmental Restoration has never returned any of my phone calls, and that other news articles have stated that the company has relied on their nondisclosure agreement to avoid answer reporters' questions. Given that, could you please expand on your response? Is Environmental Restoration relying on a nonexistent nondisclosure agreement to avoid cooperating with the press?

As previously stated:

The statement of work includes a standard requirement that the contractor shall not publish or otherwise release, distribute, or disclose any work product generated under the contract without obtaining EPA's express advance written approval. This does not require either an NDA or confidentiality agreement be signed by individual employees.

We cannot comment on Environmental Restoration's corporate media policies.

Also, in Dennis Greaney's written testimony from Sept. 9, he mentions that his company was "directed to remove rubble and debris that had caved in over the mine opening," which ultimately caused the spill. Who gave the order to remove the rubble and debris? Have they been held accountable for giving that order?

From Addendum to EPA Internal Review of Gold King Mine Incident dated December 8, 2015:

"Under (EPA On Scene Coordinator (name redacted)'s direction, the team slowly and carefully scraped away loose soil and rubble near the face of the adit with the initial goal of locating the primary blockage."

1. When would EPA decide on an NPL listing and begin a superfund cleanup process - if locals agree that they want this and the governor as he has said he will do supports them and requests the listing?

Here is the process for NPL proposals. When EPA proposes to add a site to the NPL, the Agency publishes a public notice about its intention in the Federal Register and issues a public notice through the local media to notify the community, so interested members of the community can comment on the proposal. EPA then responds to comments received. If, after the formal comment period, the site still qualifies for cleanup under Superfund, it is formally listed on the NPL. Once it is listed, the Agency will publish a notice in the Federal Register and respond formally to comments received. In addition, EPA may issue a fact sheet or flyer to notify the community impacted by the site.

2. What concerns, if any, does EPA have with locals' insistence that the NPL listing must cover only the upper Cement Creek area?

The local communities have a key seat at the table. As our discussions with them continue, we are staying very focused on addressing all of their comments and concerns.

3. Why did EPA four years or so ago do the analysis of PRPs in upper animas? It looked at 62 mining sites. If that was because funding was a challenge then, how can EPA be certain it will have funds to embark on aggressive superfund approach this year?

As we've said previously, it's premature to discuss funding.

4. How much metals sludge and other material has been collected at the temporary water treatment plant? Where is it being stored? When will EPA move it? Where to?

It is estimated that approximately 2,500 to 3,000 cubic yards of treatment solids will be generated from the interim water treatment plant by early summer 2016. The solids have been tested for the required hazard characterization and are not classified as hazardous waste.

Currently, the interim water treatment solids are contained in the dewatering bags located within the lined solids dewatering area adjacent to the treatment facility. Solids generated during the two months of temporary treatment operations in 2015 are being stored onsite in a temporary impoundment near the retention ponds at Gladstone.

Consistent with EPA's response authority under CERCLA, the lime treatment solids will be temporarily stored near the onsite treatment facility until a suitable permanent location is identified. They may be permanently stored onsite or transported off-site for disposal in an approved landfill.

What are next steps for the Upper Animas listing?

DRAFT from Randy Deitz, not approved for distribution: Our current written Agency policy for proposing a site for listing on the NPL is that we seek state concurrence. EPA will send a letter to the state Governor's office seeking a letter of concurrence for proposing a site to the NPL. Typically, we will get a letter from the governor saying they support or don't object to a listing. Occasionally, the governor will defer and let the state's EPA/DNR etc. Secretary or Director send in a letter of support or no objection. Regarding local communities, we have no formal written policy to seek official concurrence. However, in practice, depending on site/local dynamics, regions do varying levels of outreach to local communities to help support arriving at consensus and support for an NPL listing. It is not unusual that total consensus may not be achieved, however, it is important for us to make the case how the NPL listing and

subsequent cleanup actions will help address the risk posed to the community by hazardous substance releases from a site. In practice, it may be difficult to obtain a state concurrence if the affected local community(ies) oppose listing. When local officials/community supports listing, it is not unusual for local officials to send a letter to the governor and/or to EPA expressing that support.

EPA's efforts to support Navajo Nation:

We have a long-term relationship with the Navajo Nation and the agency is committed to working collaboratively with the Tribe on response activities related to the Gold King Mine release. In total, EPA and the Bureau of Indian Affairs (with EPA funding) provided over 1 million gallons of livestock and agricultural water to farmers and ranchers on the Navajo Nation. EPA also provided nearly 8,500 bales of hay to Navajo communities along the San Juan River.

In the immediate aftermath of the release, EPA established an Area Command Post in Durango, Colorado. EPA Region 9 and EPA Region 6 also established Incident Command Posts (ICP) in Farmington, New Mexico. Throughout the response, EPA also worked closely with the Navajo Nation Emergency Operations Center (EOC) in Window Rock, Arizona. EPA deployed a liaison to the Window Rock EOC from August 13 through September 18. EPA also provided an On-Scene-Coordinator and Coast Guard personnel from September 21 through October 2 to support the operations of the Navajo Nation EOC.

EPA Region 9's Farmington ICP coordinated sampling activities on the San Juan River and Lake Powell, and delivery of hay as well as livestock and agricultural water to Navajo Nation. The Farmington ICP also had a Community Involvement Unit composed of 2-4 community involvement staff that engaged with Navajo communities affected by the Gold King Mine release. Community involvement staff attended meetings at the invitation of Chapter presidents and local officials, and shared critical information about emergency water and hay provisions and response activities with residents, reaching an estimated 1100 community members at nine public meetings over ten days.

EPA is committed to reimbursing all eligible response costs incurred by Navajo Nation, in addition to offering support regarding data collection and analysis, risk communication, assessing impact on cultural resources, long-term watershed monitoring, and individual claims for reimbursement.

On Timing for an NPL listing – this was sent to CO Public Radio, On Background:

Presuming the letter is received from the Governor by about mid-February, and the other work previously identified is completed in a timely manner, the proposed listing would be published in the Federal Register, probably mid- to late-March 2016. As stated, that begins the public comment period. The earliest the site could be finalized on the NPL would be approximately September 2016. Once the site is finalized, it will proceed through the entire Superfund remedial process: remedial investigation and feasibility [for detailed site characterization], publication of the proposed and then final Record of Decision [which includes public comment prior to going final] identifying the selected remedy, and then remedial design and remedial action. The time between finalization on the NPL and actual construction work is typically several to many years. Please visit www.epa.gov/superfund/superfund-cleanup-process for more detailed information about each stage and the overall process.

On that page is a link for a community guide to EPA's Superfund program.

What is the current water quality in the Animas and San Juan rivers?

The EPA is confident that the Animas and San Juan rivers are safe for agricultural use and long-term recreational exposure. That's because water sampling has shown that both the Animas and San Juan

Rivers have returned to the same condition they were in before the GKM release.

That said, acid mine drainage has been released into the rivers for many decades and winter runoff and major storms may kick up material that had settled to the bottom of the rivers. So those using the river for recreation, agriculture or drinking water should use the same precautions they always have.

EPA is working with city, state, county and tribal stakeholders to develop monitoring plans that will continue to assess the impacts of mine releases on the Animas and San Juan rivers. The monitoring will evaluate seasonal changes, including pre-winter and post-winter runoff and low-flow conditions.

The agency will continue to post water quality information as new data become available.

If the Animas and San Juan rivers are safe, then why has the EPA pushed to designate the area a superfund site?

While the Animas and San Juan rivers returned to pre-release conditions downstream, there are still significant metal loadings from numerous mining sources in the Upper Animas mining district.

Historically, the Animas River has an elevated “normal” (pre-event) level of metals independent of the Gold King Mine release, due to the constant supply of acid mine drainage into the river from many sources. There are literally hundreds of old mines, ore processing locations and other places where acid mine drainage containing metals enters small streams and creeks that ultimately enter the Animas River.

The United State Geological Survey (USGS) conducted sampling in the Animas River in 1995-1996 to measure the amount of metals carried by the river during the spring snowmelt period. They estimated an average metals load of approximately 2,300 kg/day. (In comparison, when the plume from last summer’s Gold King Mine release reached the lower Animas River, it carried an estimated average load of 2,000 kg/day.)

EPA and the Colorado Department of Public Health and Environment (CDPHE) conducted a Superfund Site Assessment of the area in the 1990s. The assessment identified the severe impacts to aquatic life in the Upper Animas and its tributaries from naturally occurring and mining-related heavy metals. In recognition of a community-based collaborative effort, EPA agreed to postpone adding all or a portion of the Animas Mining District to the Superfund NPL, as long as progress was being made to improve the water quality of the Animas River. Until approximately 2005, water quality in the Animas River was improving. However, since 2005, water quality in the Animas River has not improved and, for at least 20 miles below the confluence with Cement Creek the water quality has declined significantly. Impacts to aquatic life were also demonstrated by fish population surveys conducted by Colorado Parks and Wildlife, which found no fish in the Animas River below Cement Creek for approximately two miles and observed precipitous declines in fish populations as far as 20 miles downstream since 2005. Because of this declining water quality in the Animas River, in 2008, EPA’s Superfund Site Assessment program began investigations in Upper Cement Creek focused on evaluating whether the Upper Cement Creek area alone would qualify for inclusion on the NPL. This evaluation indicated that the area would qualify, although after receiving additional community input, EPA postponed efforts to include the area on the National Priorities List. Since that time, EPA has continued and broadened its investigations of conditions in the area in order to understand the major sources of heavy metal contamination in the Upper Animas watershed.

The EPA is currently working with state, local and tribal stakeholders to address long-term solutions, including a potential NPL listing, to the acid mine drainage discharging into the Upper Animas watershed.

1. Could you tell me if the proposed listing of the Bonita Peak Mining District is unique in terms of size or the way in which the site would be comprised? In other words, is this the first-time EPA would be listing a site with dozens of mines on it? And is it unique in that the site wouldn't encompass all the land mass between mines, but just the mines and contaminated areas and avoid listing private lands that are not contaminated but may sit among the mines?

There have been mining related NPL sites targeted to individual mines but this is a unique approach for a large scale mining district.. We were fortunate to have significant data from the local stakeholder group, as well as other State and federal agencies that allowed us to focus on mines and mine related sources that are likely significant contributors to metal loading. This level of information is not always available at this stage for such a complex area.

2. How large is the proposed site? Do you have a map of it?

The Bonita Peak Mining District consists of 48 historic mines or mining-related sources (maps attaches) , where ongoing releases of metal-laden water and sediments are occurring within Mineral Creek, Cement Creek and the Upper Animas. These drainages join to form the Animas River near Silverton, Colorado, which is used for drinking water, recreation and agricultural purposes. Assessment work completed by the state of Colorado, the United States Geological Survey, the EPA and the Animas River Stakeholders group was used to identify these sources as significant contributors of metals found in the surface water and sediments throughout the mining district and the Animas River.

The 48 historic mines or mining-related sources are located within Mineral Creek, Cement Creek and the Upper Animas as can be seen in the attached figures. Two study areas, which are included in the count of 48 sources, were identified as areas where additional information is needed to evaluate environmental concerns. They are not included in these figures as the boundaries are not understood at this time. These two areas are located in Prospect Gulch and the Sunnyside Mine Pool area in the upper reaches of Cement Creek and Upper Animas.

3. Would this listing set a precedent in any way in terms of listing mining sites on the NPL? If so, in what way?

This does not set any new precedents as EPA has listed individual mines on the NPL such as the Standard Mine and Captain Jack Mines, both in Colorado.

4. I understand the town of Silverton was going to vote Tuesday on whether they support the NPL listing. Do you know the outcome of that vote? How does that affect the listing?

The Silverton Town Council, and the San Juan County Commissioners, both voted unanimously on February 22, 2016, to seek Superfund listing for 46 mining sites and two study areas in the area north of the Town of Silverton now referred to as the Bonita Peak Mining District. On February 23, they sent a letter to Governor requesting his support for an NPL designation.

As a matter of policy, EPA seeks concurrence from the state governor or a tribe, when the tribe

has jurisdiction, prior to NPL proposal. The Agency expects the Governor to support the Silverton/ San Juan county request and we have requested that the Governor provide his support or concurrence with the NPL designation by February 29th to provide adequate time to meet the next NPL update scheduled for March.

EPA proposes sites to the Superfund NPL through a Notice of Rulemaking where all relevant documentation that forms the basis of EPA's decision is published in the Federal Register. This is followed by a 60-day public comment period during which those with concerns can provide input on the proposed listing. After evaluating and responding to comments, EPA makes a final determination whether to add the site on the NPL. EPA is committed to continue investigation work this spring

1. How long would it take to get a Superfund cleanup done along the Animas?

As a matter of policy, EPA seeks concurrence from the state governors or a tribe, when the tribe has jurisdiction, prior to NPL proposal. The Agency expects the Governor to support the Silverton/ San Juan county request and we have requested that the Governor provide his support or concurrence with the NPL designation by February 29th to provide adequate time to meet the next NPL update scheduled for March.

The first step following NPL listing is the development of, followed by the implementation of, a plan for a detailed, comprehensive investigation into the contamination sources (called a Remedial Investigation) followed by the development of feasible cleanup alternatives (called a Feasibility Study).

The EPA has contracts in place to begin this work immediately after the site is proposed to the NPL. The remedial investigation serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the waste;
- assess risk to human health and the environment; and
 - conduct treatability testing to evaluate the potential performance and cost of the treatment technologies that are being considered.

The FS is the mechanism for the development, screening, and detailed evaluation of alternative remedial actions.

The RI and FS are conducted concurrently - data collected in the RI influence the development of remedial alternatives in the FS, which in turn affect the data needs and scope of treatability studies and additional field investigations. This phased approach encourages the continual scoping of the site characterization effort, which minimizes the collection of unnecessary data and maximizes data quality.

Initial investigation work in the Upper Animas Mining District has been done through the previous efforts of EPA, Bureau of Land Management, U.S. Forest Service and the Animas River Stakeholder Group. EPA would work with the communities and stakeholders and look carefully at this existing information in determining the additional investigation needed. EPA takes public input on a proposed cleanup plan.

Once a remedy is selected (called Record of Decision), it is designed and the cleanup work (called remedial action) begins. Community involvement, interim actions (such as, mine portal stabilizations and bulkhead installations), and potential enforcement actions occur throughout the

entire process.

If warranted, removal actions, short-term responses used to handle threats of releases, may be taken at any step of the process to ensure public safety. For example, EPA took early removal actions to address imminent threats at 35 percent of hardrock mining or mineral processing NPL sites prior to their being added to the NPL.

The length of time it takes for remedial action to begin depends on a variety of site-specific factors. At the end of FY 13, remedial action work had begun at approximately 130 hardrock mining or mineral processing NPL sites. At these sites, it took approximately 6 years for remedial action to begin after NPL listing.

At the end of FY13, 51 hardrock mining and mineral processing NPL sites had reached construction complete status. At these sites, it took approximately 12 years from NPL listing to achieve construction complete status. Note that most of these sites that have achieved construction complete are mineral processing sites which tend to be less complex than hard-rock mining sites.

Hardrock mining sites often have a requirement for long-term water treatment, and this often lengthens the period of time a site remains on the NPL.

In the case of the Upper Animas, we expect to move quickly into the investigations needed to begin identifying appropriate clean up actions.

EPA has work plans in place for additional sampling this summer and fall that will be part of the remedial investigation that will serve to further delineate the nature and extent of the contamination.

Operations at the Gold King Mine will resume as early as possible in the late spring/early summer, dependent upon road conditions and any remaining avalanche hazards around the mine (which can extend into May). We expect the primary objective at this time to be completing work to stabilize the first 60 feet of the adit and constructing the temporary low-head flow control structure. The extent to which additional rehabilitation work (mucking solids and ground support) is continued into the mine remains to be determined.

If not, what is the basis for the assurances local officials tell me they've been given repeatedly by the EPA that money will be available to get the job done?

Here is an example that may be useful: In FY 2014, the agency started 66 new remedial construction projects, including 38 government-funded projects and 28 PRP-funded projects, and continued to conduct or provide oversight at more than 413 remedial construction projects started in prior fiscal years. Because of funding issues, EPA was unable to proceed with new construction work at five NPL sites with projects ready to start construction in FY2014.

4. We've reported on how Congress has reduced money for Superfund from around \$2 billion for cleanups nationwide in the late 1990s to less than \$1 billion for cleanups nationwide today. Is that still the best number range to use? Can EPA be more precise?

The Superfund annual enacted appropriation for FY 2006-2015 is presented below.

Fiscal Year	Hazardous Substance Superfund Enacted Appropriation in Millions
2006	\$1,235.0
2007	\$1,255.0

2008	\$1,254.0
2009*	\$600.0
2009	\$1,285.0
2010	\$1,307.0
2011	\$1,280.9
2012	\$1,213.8
2013	\$1,113.3
2014	\$1,088.8
2015	\$1,088.8

*Represents the American Recovery and Reinvestment Act of 2009 resources

5. In view of this sharp reduction, and in view of the average time taken to complete a Superfund cleanup, what is the EPA's position on whether it will be able to get the job done on the upper Animas within five years.

Prior to completing an RI/FS, EPA will not know what the site's cleanup scope will be, and, therefore, we can't estimate how long cleanup actions will take. At all sites, the length of time to complete all remediation work depends on a number of site specific factors. For example, it's hard to predict what year the remedial investigation and feasibility study will be done, how many other sites will be in the queue for funding that year, and whether there will be one or more PRPs helping pay for the cleanup. We also don't know yet what the exact problems are, and what the remedies should be --- that information, which will be included in the remediation proposal, will ultimately determine project cost and timeline.

How much is in that regional discretionary fund? And would that be enough to cover the cost of the remedial investigation and the feasibility study?

Regions receive funding to do remedial investigation and feasibility studies. Called "pipeline funding," in recent years Region 8's total pipeline budget has been \$8-10 million annually. This funding supports Region 8 Superfund pre-remedial and remedial work, aside from construction. Region 8's highest priority is to fund and begin this site's investigation work.

If not, what is the basis for the assurances local officials tell me they've been given repeatedly by the EPA that money will be available to get the job done?

The response to question #2 provides information on how Region 8 can apply funding for non-construction work. For construction work, a national risk-based process is utilized to help prioritize which projects can begin construction in a given fiscal year based on construction funding available nationally. While some sites may have construction work that goes unfunded for multiple fiscal years, the national process attempts to provide resources to any project that has been awaiting new construction funding for longer than three years. In fiscal years 2014 and 2015, only three to five projects nationally have gone unfunded in a given fiscal year. Currently, our Region 8 office does not have any projects awaiting allocation of new construction funding.

Here is an example that may be useful: In FY 2014, the agency started 66 new remedial construction

projects, including 38 government-funded projects and 28 PRP-funded projects, and continued to conduct or provide oversight at more than 413 remedial construction projects started in prior fiscal years. Because of funding issues, EPA was unable to proceed with new construction work at five NPL sites with projects ready to start construction in FY2014.

- 1) Does the agency have any ballpark estimate on how much the cleanup might eventually cost?

At this point, we have no way of knowing as we only have limited Site data. Full Site characterization is necessary prior to considering cleanup options and associated costs.

- 2) When will the agency know if there are potentially responsible parties that it may choose to seek payment from for the cleanup?

The Superfund program operates on the principle that polluters should pay for the cleanups, rather than passing the costs to taxpayers. Early in the cleanup process EPA searches for potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. EPA has initiated a search for potentially responsible parties (PRPs) for some of the mines in the proposed Bonita Peak Mining District, but at this time does not know when that process will be complete and PRPs identified.

- 3) Once the agency decides on PRPs, if any, how can we the public learn about that decision and who those parties are?

When PRPs are identified, EPA may send them a letter notifying them of their PRP status. At that time, those letters are available to the public.

What is the EPA's reaction to House Republicans' assertion today that EPA crew "deliberately" removed small part of plug at Gold King before deluge. House NR Committee chairman Rob Bishop made the assertion while grilling Interior Secretary Jewell on her agency's review of EPA actions leading up to the Aug. 5 disaster.

As stated in the Dec. 8, 2015 Addendum to the Agency's internal review, the Gold King Mine project manager identified preparatory and assessment work to be conducted at the GKM site. The preparatory and assessment work identified was: adit drainage control; water management system; excavation above adit/hill slope; and adit face excavation.

The Addendum notes that the work goals were to assess the site conditions and to help prepare for a decision on future work, which would be discussed during a consultation meeting planned for August 14, 2015. For example:

- The water management system would be needed if there was a decision to open the GKM site adit since there was potentially significant water buildup in the adit.
- The excavation above and at the face of the adit was needed to determine the exact location and condition of the blockage, and the exact location of the bedrock above and around the adit.

In addition to providing the direction via e-mail, the project manager also provided clear verbal direction to [REDACTED], the EPA contractors, and DRMS staff not to proceed with any work on actually opening

the adit prior to a planned consultation [with BLM] on August 14.

The Addendum then details the actions taken on Aug. 4 and Aug. 5, 2015:

[REDACTED] and the team (including [REDACTED] of DRMS and contractors) arrived at the site and began some excavation work on August 4. Under [REDACTION] direction, the team slowly and carefully scraped away loose soil and rubble near the face of the adit with the initial goal of locating the primary blockage. By the end of the day, the team had located the blockage, which they were able to identify as the blockage based on the tightness and condition of the material. They decided to wait until the following day, when [REDACTED] and [REDACTED] of DRMS would also join them, to continue additional excavation. On August 5, 2015 under the direction of [REDACTED], and with consultation from DRMS as well as contractor support, the team began additional excavation to identify the location of bedrock above and around the adit. Through this careful scraping and excavation, they were able to locate the bedrock. Prior to the final excavation and cleanup, the DRMS personnel left the site to proceed to other nearby mining sites. [REDACTED] continued to oversee the final cleanup work, which included clearing of the loose colluvium near the adit. Just prior to finishing, the team noticed a water spout a couple of feet high in the air near where they had been excavating above the top of the adit. Within a few minutes, the spout had turned into a large gush of yellow/orange water that ultimately resulted in a release of an estimated three million gallons.

Sent to Dan Elliott 3/2, in response to questions on next steps now that Gov. Hickenlooper supports NPL listing.

The agency is deliberating on proposing the Bonita Peak Mining District to the NPL in the next NPL update, which is scheduled for late March or early April.

When EPA issues a rule proposing to add a site to the NPL, the Agency publishes the rule and a public comment notice about its intention in the Federal Register and issues a public notice through the local media to notify the community, so interested members of the community can comment on the proposal. EPA then responds to the comments it receives. If, after the formal comment period, the site still qualifies for cleanup under Superfund, it is listed on the NPL through another rulemaking.-

The first step following NPL listing is the development and implementation of a plan for a detailed, comprehensive investigation into the contamination sources (called a Remedial Investigation) followed by the development of feasible cleanup alternatives (called a Feasibility Study).

The EPA has contracts in place to begin this work immediately after the site is proposed to the NPL.

The remedial investigation serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the waste;
- assess risk to human health and the environment; and
- conduct treatability testing to evaluate the potential performance and cost of the treatment technologies that are being considered.

The FS is the mechanism for the development, screening, and detailed evaluation of alternative remedial actions.

The RI and FS are conducted concurrently - data collected in the RI influence the development of remedial alternatives in the FS, which in turn affect the data needs and scope of treatability studies and additional field investigations. This phased approach encourages the continual scoping of the site characterization effort, which minimizes the collection of unnecessary data and

maximizes data quality.

Initial investigation work in the Bonita Peak Mining District has been done through the previous efforts of EPA, Bureau of Land Management, U.S. Forest Service and the Animas River Stakeholder Group. EPA would work with the communities and stakeholders and look carefully at this existing information in determining the additional investigation needed. EPA takes public input on a proposed cleanup plan.

Once a remedy is selected (called Record of Decision), it is designed and the cleanup work (called remedial action) begins. Community involvement, interim actions (such as, mine portal stabilizations and bulkhead installations), and potential enforcement actions occur throughout the entire process.

If warranted, removal actions, short-term responses used to handle threats of releases, may be taken at any step of the process to ensure public safety. For example, EPA took early removal actions to address imminent threats at 35 percent of hardrock mining or mineral processing NPL sites prior to their being added to the NPL. The length of time it takes for remedial action to begin depends on a variety of site-specific factors.

In the case of the Bonita Peak Mining District, we expect to move quickly into the investigations needed to begin identifying appropriate clean up actions.

EPA has work plans in place for additional sampling this summer and fall that will be part of the remedial investigation that will serve to further delineate the nature and extent of the contamination.

Operations at the Gold King Mine will resume as early as possible in the late spring/early summer, dependent upon road conditions and any remaining avalanche hazards around the mine (which can extend into May). We expect the primary objective at this time to be completing work to stabilize the first 60 feet of the adit and constructing the temporary low-head flow control structure. The extent to which additional rehabilitation work (mucking solids and ground support) is continued into the mine remains to be determined.

Was the spill intentional?

This was a tragic and unfortunate incident, and EPA has taken responsibility to ensure that it is cleaned up appropriately. While the Office of Inspector General's investigation is ongoing, information the agency has received to date from both external and internal reviews of the matter has revealed no evidence that the blowout was in any way intentional.

Airborne sediments?

Water in the Animas River and its tributaries typically carries large metal loads during high flow events such as spring runoff and heavy rainstorms. Significant discharges of acid mine drainage have entered the Animas River and its tributaries for many years. For example, based upon 2009 – 2014 flow data, approximately 330 million gallons of contaminated water was being discharged from mines in the Upper Animas watershed into the Animas River each year – more than 100 times the August 5, 2015 release from the Gold King Mine. The contaminants in the Gold King Mine plume were generally similar to contaminants found throughout the Upper Animas Basin. High levels of metals are also found in surrounding soils due to the highly mineralized nature of the area and to historic mining activities.

Sediments are typically covered by water or associated with moisture. This makes an inhalation concern extremely low.

Should sediments become dry, they behave as soils. The human health risks from inhalation of windborne particulates from soils have been found to be minimal (approximately 100 to 1000 times less than risk via the ingestion pathway of exposure). In Silverton, the contribution of potentially dry sediment from Cement Creek to airborne particulates is low in comparison to the contribution from all other soils in the area.

This information applies to particulates generated by windborne dispersion. Mechanical disturbances, such as ATV riding, may release much higher levels of particulates into the air.

This assessment has been demonstrated in several mining and smelting sites in Region 8, including:

- Standard Mine in Gunnison County CO – This site has a long history of mining for gold, silver, zinc and copper since 1874
- Gilt Edge Mine in the Black Hills of SD – This is a 258 acre open pit gold mine where mining and processing began in the late 1880's.
- Walkerville Residential Site – Butte MT – This has been a mining, milling and smelting district for ~100 years which was mined for copper, lead, zinc, molybdenum, gold, and silver
- International Smelting and Refining Site in Toole UT – This is a copper, lead and zinc mining and processing site from 1910 – 1970.
- Barker-Hughesville Mine Site in Cascade County, MT – Mined for silver and lead between 1880 – 1980.

1. Can you be more specific on the date or dates of the next NPL update?

The NPL package will be released in late March or early April.

2. When would the rule proposing to add Bonita Peak Mining District to the NPL be issued – during the NPL update meetings, immediately after, a few days after?

The NPL package will be released in late March or early April.

3. How long is the public comment period after the rule is published in the Federal Register?

The agency's typical public comment periods for proposed NPL rules are 30 day or 60 days.

4. What has the range of time been between the end of the public comment period and the second rulemaking on previous Superfund sites – a month to a year, etc.?

It depends. Some proposed NPL sites are final listed in the next NPL package. If the site proposal receives extensive comments, the final listing may spill into a later NPL rule package. We generally issue NPL rule packages – including both proposed sites and final sites – in spring and fall of each year.

5. What is the “temporary low-head flow control structure” planned for the Gold King adit, and what would it do?

The primary purpose for this steel structure, located approximately 60 ft inside the adit, will be to provide a control for potential surges of flow that might develop in the short-term (3 to 5 years). It will be capable of impounding an increased water level within the mine while containing the increased flow within the piping system exiting the mine. The flow control system will include

instrumentation to remotely monitor water levels behind the structure. The flow control structure can be replaced and/or removed when necessary to conduct work beyond that point in the mine adit.

Regarding NM Env't Secretary Flynn's quote, "Unfortunately, the polluter, in this case the EPA, continues to turn a blind eye to the long-term effects of the Gold King Mine Spill, and has refused to support the regional Long-Term Monitoring Plan or the Spring Run-off Preparedness Plan."

EPA appreciates the concerns that states, tribes, and communities have regarding the potential for the spring runoff to mobilize sediments deposited by the Gold King Mine release and decades of drainage from the many mines in the Silverton area.

EPA is providing \$2 million in funding to support states' and tribes' long-term monitoring plans. Utah, New Mexico, Southern Ute Indian Tribe, Ute Mountain Ute Tribe, Navajo Nation, and Colorado may apply those funds to spring monitoring and preparedness planning as well.

EPA is also supporting a stakeholder-driven effort – called the Animas-San Juan Preparedness Plan – to coordinate monitoring efforts. The group's latest meeting on Feb. 29 was attended by the states of New Mexico, Utah and Colorado, the Southern Ute and Navajo Nation, and local jurisdictions. EPA is providing the group with technical and infrastructure support to help stakeholders better coordinate their monitoring plans and share environmental data.

EPA is conducting its own comprehensive post-release sampling of the Animas and San Juan Rivers from above Silverton, Colorado to Lake Powell, Utah. The first round of sampling results will be released this month. The next sampling event will take place at the end of March, followed by additional sampling in June and in the fall. EPA will also coordinate with local jurisdictions to sample the rivers during storm events in the summer.

Plans for the Water Treatment Plant

The interim water treatment plant, installed in November 2015, is treating ongoing acid mine drainage being discharged from the Gold King Mine (GKM). The plant, which replaced the temporary treatment ponds that were put in after the August 2015 release to treat mine water discharge, will be operated over the winter, with removal work resuming this summer. EPA is still assessing the appropriate overall duration of the plant's operations. As part of our continuing discussions over longer term efforts to address wide-spread acid mine drainage in the Upper Animas Watershed, the EPA, and CDPHE will continue to work with local, tribal, nongovernmental and other stakeholders on water treatment options and other long-term solutions to the impacts from mining in the Upper Animas Watershed. Regardless of what solutions these discussions lead to, downstream communities will not be asked to pay for water treatment.

